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## Development

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The Commission has a dual mandate with respect to conservation and development in the jurisdiction. It must reconcile the need to protect the natural environment and other important values from uses that cause degradation with the need for traditional, resource-based uses and reasonable, new economic growth and development.

Historically, development has stayed mainly on the edges of the jurisdiction, with the exception of scattered seasonal dwellings and traditional, resource-based uses such as sporting camps. This pattern of development was compatible with use of the region principally for nonintensive recreation and forestry. It also served to protect the natural resources and distinctive character of the interior of the jurisdiction.

Since its inception in 1971, the Maine Land Use Regulation has sought to reinforce and promote this pattern of development. Now, with over 25 years of permitting data regarding the location and intensity of development, the Commission has an opportunity to evaluate the success of its efforts in guiding development, and to determine whether a continuation of development patterns evident over that period will assure future protection of the jurisdiction's principal values.

This section provides a characterization of past, present and likely future development activities, an evaluation of development trends and the Commission's planning and zoning approach, and a discussion of the central development issues facing the jurisdiction, including recommendations for addressing them.

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## Inventory of Land Use and Development

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### Historical Development

Natural resources have dominated the history of the area that is now the Commission's jurisdiction. Early Indian tribes constructed a number of permanent villages along major rivers near resources and transportation routes. The first settlements by Europeans were isolated outposts producing fish, fur, and timber for distant markets. Settlements were generally limited to the most accessible areas: islands, coastal mainland areas, and lands near navigable rivers.

Much of the area never became heavily settled because, by the time it was opened up for settlement in the 1800's, pioneers were being lured west by the prospect of rich agricultural lands and mining claims. The region's harsh winters, rocky soils and short growing season also discouraged agricultural settlement.

Land ownership in Maine underwent a great transition in the first half of the 1800's. Before gaining statehood in 1820, only nine million acres of the 20 million acres of public domain had been sold or granted to private parties by the Commonwealth of Massachusetts. When Maine became a state, the remaining public lands were surveyed and divided equally between Maine and Massachusetts. The state of Maine granted some land for roads, railroads, schools and colleges during the 1830's and 1840's, both in response to, and to encourage, a growing population and a demand for more and better transportation of forest products. During that same period, many individuals became aware of the importance of Maine's timberlands and a land boom began. By 1847, almost all the public lands in the state had been sold to private interests by Maine and Massachusetts, except for a 1,000 acre public lot reserved in each township. The region's

## Year-round Population Change, 1970 - 1990 LURC Jurisdiction, as Defined in 1990

Region	1970	1980	% Ch. 1970-80	1990	% Ch. 1980-90	% Ch. 1970-90	Avg. Ann. % Ch. 1970-90
Aroostook	4,535	4,444	- 2.0%	3,812	-14.2%	-15.9%	-0.8%
Central	3,009	3,379	+12.3%	3,902	+15.5%	+29.7%	+ 1.5%
Western	1,120	1,447	+29.2%	1,647	+13.8%	+47.1%	+ 2.3%
Eastern/Coastal	1,864	2,175	+16.7%	2,088	-4.0%	+12.0%	+ 0.6%
<b>TOTAL</b>	<b>10,528</b>	<b>11,445</b>	<b>+8.7%</b>	<b>11,449</b>	<b>+0.03%</b>	<b>+8.7%</b>	<b>+ 0.4</b>

Notes: Aroostook = jurisdiction within Aroostook county; Central = jurisdiction within Penobscot, Piscataquis, Somerset counties; Western = jurisdiction within Oxford, Franklin counties; Eastern/Coastal = jurisdiction within Washington, Hancock, Knox, Lincoln, Sagadahoc, and Kennebec counties.  
Source: U.S. Census; Market Decisions, Inc.

pattern of large landholdings and the development of a papermaking process using wood cellulose were key factors in the emergence of the area in the late 1800's as the principal resource base for Maine's commercial forest industry. The Kennebec, Penobscot and other major rivers provided a means to transport timber and power mills.

The opening of more remote areas to logging also opened the interior to recreation in the 19th century. People came from the rapidly growing cities of the East to vacation in resorts such as Kineo, Harford's Point and Seboomook, to fish and hunt while lodged at sporting camps, or to take part in camping trips into the heart of the Maine Woods.

One of the most significant changes in the history of the area was the end of log drives in the 1970's, and the construction of thousands of miles of haul roads. These roads opened up areas previously accessible only by boat or foot. This improved access resulted in scattered, low-density development across the jurisdiction, principally seasonal camps near lakes and other recreational attractions. Improved access also significantly increased use of the area by hunters, anglers, and other recreationists.

Historically, most development has concentrated on the edges of the jurisdiction, leaving large blocks of land substantially undeveloped and intact. During the 1980's, a substantial amount of land division occurred in the interior, and a number

of more remote townships experienced significant residential development. While the overall amount of development in the interior remains small, these trends represent a shift in the jurisdiction's historical development pattern.

### Population

The year-round population of the jurisdiction is small in relation to its large size. Overall population density in the jurisdiction is less than one person per square mile. Densities are significantly higher in communities on the fringe areas, whereas many townships in the interior have few or no year-round residents.

Year-round population was in gradual decline during this century until 1970 when it began to increase slowly. The population in 1990 was 11,449, an increase of 8.7% over 1970. By region, rates of growth in the jurisdiction's population vary widely. Between 1970 and 1990, the Central Mountain Region (Penobscot, Somerset, Piscataquis Counties) and Western Mountain region (Oxford and Franklin Counties) grew by 30% and 47% respectively, while the Aroostook County area declined by 16%.

The population of the jurisdiction swells during the summer months due to its recreational attractions and large stock of seasonal housing. While no estimates exist for seasonal population, the number of seasonal dwellings outnumbers



year-round dwellings by more than a 2-to-1 margin. Most seasonal residents are from Maine, although a significant percentage come from Massachusetts and other Northeastern states.

The median age of jurisdiction residents is nearly 37 years old, compared with 34 for the state as a whole. Thirty-five percent of the jurisdiction's households had incomes in 1990 of less than \$15,000, and the median income was \$21,246, compared to the state median of \$27,896. The average size of year-round households is 2.62 persons, down from 2.89 in 1980.

The population of the jurisdiction is expected to continue its slow growth into the next century, with a majority of new residents settling in the Central and Western Mountain areas. The most significant demographic shift will occur in the population of Maine as a whole, and in other New England states, as the baby boom generation moves into middle age and beyond. Members of these older groups are much more likely to purchase second homes, and the jurisdiction will be an attractive market.

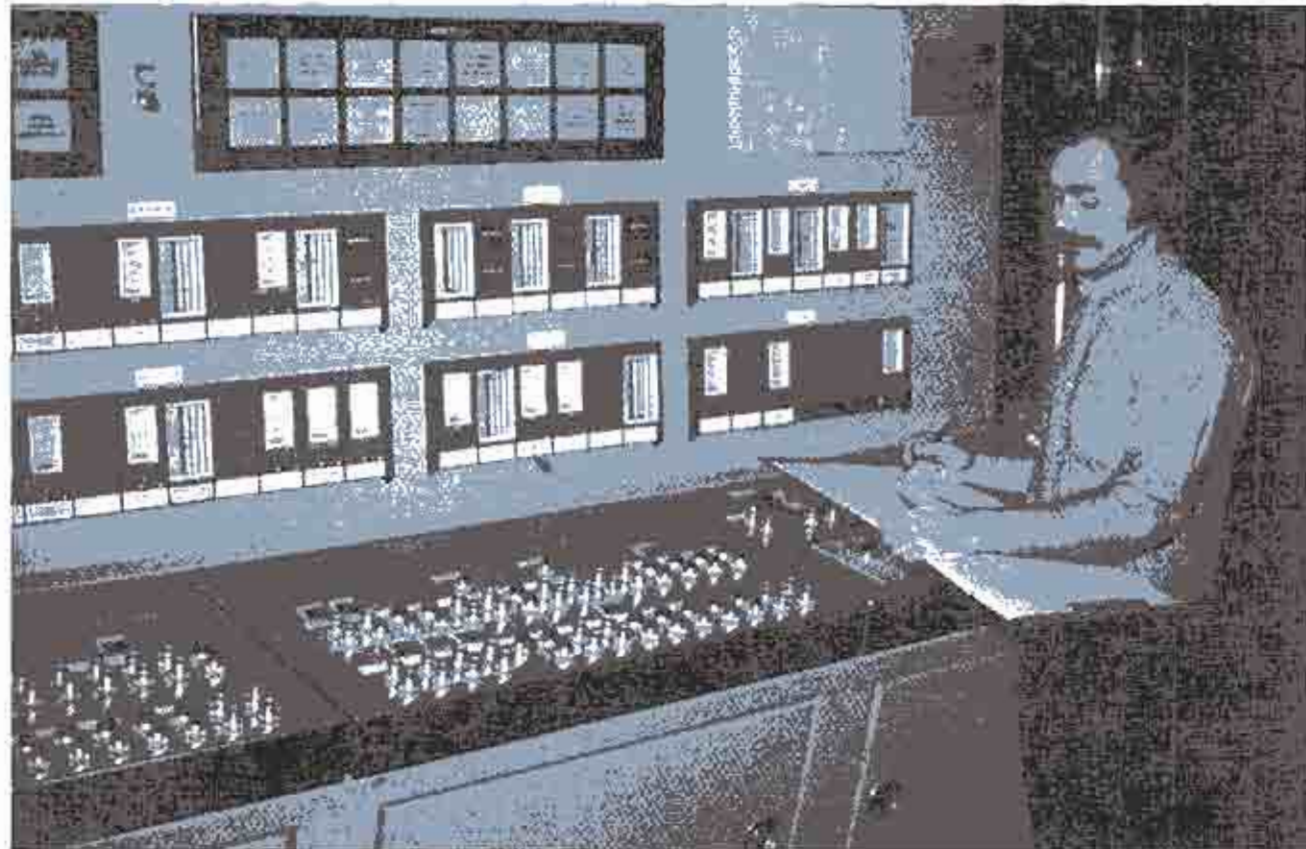
## Economy

### Primary Industries

The economy of the jurisdiction remains natural resource-based, with a focus on forest products and recreation. Many businesses located outside the jurisdiction depend on its natural resources, either for raw materials or as a destination for recreational activities.

The forest products industry is the largest single contributor to Maine's economy, and is the backbone of the economy of the jurisdiction. The area provides a continuous stream of raw materials for lumber and paper production. Chipping mills, sawmills, and pulp and paper mills of various sizes and types are scattered across the jurisdiction or are located in adjacent towns where they provide employment. Small, specialty wood products manufacturers contribute to the mix.

In the early 1990's, forest-based manufacturing statewide employed over 25,000 people, with a



*Paper mill worker*

total payroll of over \$660 million. The State Planning Office projects the lumber and wood products sector will increase its employment slowly during the 1990's. Employment in the paper industry is expected to continue a long-term, slow decline.

Tourism and recreation are the next most significant economic force in the jurisdiction. The area's natural resources attract a diverse clientele which spends dollars directly on recreational activities and on support services such as lodging, food and supplies. Facilities such as ski areas, rafting bases, sporting camps, and campgrounds are major tourist attractions, but many recreational users engage in dispersed activities, either on their own or as part of organized tours. Of these types of activities, hunting and fishing have historically generated substantial economic benefit to local communities. More recently, snowmobiling has become a significant job and revenue producer during the winter months. A rapidly growing sector is nature-based tourism – organized or independent activities focused on wildlife viewing, backcountry trekking and other remote recreational experiences.

In the early 1990's, forest-based recreation employed over 24,000 people, with a total payroll of over \$220 million. Evidence of growth in many recreational activities exists within the jurisdiction, but most available information on the tourism sector includes both organized and unorganized areas. The State Planning Office projects jobs in recreational services to grow by 15%- 20% over the course of the decade.

Agriculture is an important economic activity for some portions of the jurisdiction, particularly in Aroostook County and Downeast. Potatoes and blueberries are primary cash crops. On several coastal islands, fishing remains an economic mainstay.

### Labor Force and Employment

Some communities of the jurisdiction have diverse local economies based on forest products, agriculture, and recreation. Most residents of the area, however, rely on adjacent organized towns for employment. In 1990, over 75% of the jurisdiction's 5,020 employed residents commuted to organized towns and cities to work, with one-third commuting more than 30 minutes.

The major job centers to which jurisdiction residents commuted for work in 1990 included:

- Four primarily manufacturing communities employing 530 residents: Millinocket (paper), Baileyville (paper and wood products), Houlton (wood products and food related manufacturing), and Caribou (electronics and food);
- Three primarily retail and service centers employing 206 residents: Bangor, Calais, and Van Buren;
- Three recreational communities employing 318 residents: Bethel, Rangeley, and Greenville; and
- Limestone, home of the former Loring Air Force Base, employing 139 residents (many of these jobs have since been eliminated as a result of the base closing).

These 11 communities account for about one quarter of the employment in the jurisdiction.

The future of the economic base that employs jurisdiction residents will be affected by many circumstances, but most notably by the health of the forest products and recreation industries, the closing of Loring Air Force Base and whether a future use is found for the site, and developments in U.S./Canadian trade.

### Factors Driving Development

Historically, a major factor contributing to limited development in the jurisdiction has been the policies of large landowners. Many were generally not favorably inclined toward development because education and other costs associated with servicing new development raised property taxes, and development sometimes interfered with forestry operations. In addition, current use taxation of forestland has provided incentives for keeping land in forest management and disincentives for developing land.

But some of the considerations involved in corporate decision-making are changing. The increase in the value of land, particularly along accessible lakefronts, has made development a more attractive alternative, especially as a way to earn a relatively quick cash return compared to the long-term benefits of holding forestland. Increases in estate taxes, and other shifting tax and regulatory policies, have also created uncertainties for long-term investment in forestland.

The effects of these and other changes is that large landowners appear to be more willing to sell

land, and the trend seems to be more toward selling than the past practice of leasing, in which the landowner retained a measure of control. Waterfront lands with potentially high market values are most likely to be sold.

The primary demand for new development will come from the second home market. The fastest growing age category in the primary market area (Maine and Massachusetts) is the 45-54 year-old group, which is also the group most likely to buy second homes. Other factors that will spur the second home market are the relative affordability and availability of land, and improved accessibility within the jurisdiction. These factors are likely to offset the factors of slow population growth and a sluggish economy. Housing projections based on these factors are discussed in the next section.

## Primary Development Activities

The primary development activities in the jurisdiction are housing, recreation-related commercial development, energy generating and transmission facilities, other commercial and industrial activities, road and infrastructure improvements, and waste disposal facilities.

## Housing

### Characteristics

The main type of structural development in the jurisdiction today is housing. U.S. Census data for 1990 show 16,330 housing units. While the average density of housing units within the jurisdiction is exceedingly low (approximately one unit/square mile), concentrations of residential development are found in the plantations and near organized towns.

Residential development typically includes the construction of dwellings, garages, and driveways and/or roads; the clearing and grading of land; and the installation of water and septic systems and utilities. It can also include the construction of other accessory buildings, the installation of docks and communications equipment, and shoreline alteration.

Seasonal homes in the jurisdiction outnumber year-round homes by a more than two-to-one margin. In 1990, the Census classified 5,085 dwellings as year-round residences and 11,244 as seasonal or recreational homes. More than 81% of year-

round and seasonal residences were classified as single-family homes, 16% as mobile homes, and 3% as "other."

Year-round homes are generally located in fringe areas, particularly near employment centers. More than 75% of the employed residents of the jurisdiction commute to work in organized areas. A majority of seasonal homes are also located on fringe areas, most commonly on larger, accessible lakes.

The thirty-two plantations and eight organized towns of the jurisdiction contain a disproportionate share of the housing development. This seems to be a function more of their general location on the fringes of the jurisdiction rather than their governmental status. Many of the unorganized townships on the fringe of the jurisdiction also have relatively high concentrations of housing.

Although recent development has reduced the average age of housing stock in the jurisdiction, a significant percentage of the dwellings were constructed prior to 1960. Most of these structures were constructed as relatively primitive cottages or cabins, and they frequently are sited close to shorelines or roads. Some of these structures remain in their original state, but many have been improved or expanded.

### Trends

Housing growth since the inception of LURC in 1971 has been moderate. Between 1971 and 1991, the Commission issued 5,046 permits for new dwelling units, an increase of 40% in housing stock, using the estimated 1970 Census count of 12,634 dwellings as a baseline. During this same period, the Commission approved 144 subdivisions, accounting for 1,820 new lots occupying 6,375 acres.

The 1990 Census data indicate 3,696 new dwellings in the 1970-90 period. This disparity between permit and Census data is probably the result of not all permitted dwellings being constructed as of April 1990, when Census counts were taken, and possible undercounting by the Census of vacant seasonal housing on unimproved roads or isolated camps with no road access.

While housing growth, averaged over the period between 1971 and 1991, was moderate, housing growth during the 1980's was brisk. According to Census information, 3,079 dwellings were constructed during the 1980's, a rate of over



300 units per year compared to 185 units per year averaged over the entire 20 year period. Permit activity has continued in the 300 units per year range in the first half of the 1990's.

Recent trends have reinforced the predominantly seasonal nature of housing in the jurisdiction. Of the 3,079 new homes constructed during the 1980's, 2,216, or 70%, were classified as seasonal by the U.S. Census. The Commission permit data indicates a roughly 50/50 split between new seasonal and year-round units. This is because permit applicants often categorize their homes as "permanent homes" rather than seasonal if the home is to be insulated and suitable for use in any season, or if the applicant is considering retiring to it.

New development has gravitated toward shorelines. Forty-three percent of all permits for new residences and 66% of residences categorized as seasonal were located on waterbodies, mostly lakes. And 53% of all new lakeside residences were located on lakes with a Resource Value of 1A – lakes of statewide significance with multiple outstanding natural values. Roughly 73% of approved subdivision lots were located on a waterbody.

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The development that occurred during the 1971-1991 period was not spread evenly. The Western Mountain region absorbed 45% of new residences, while comprising 26% of the area's minor civil divisions. Eight communities accounted for 100 or more dwellings units each, and 29 others accounted for 40-99 units each. Together, these 37 communities, which represent 8% of the minor civil divisions in the jurisdiction, accounted for 58% of the new residences.

Most of these high-growth townships are adjacent to organized towns in the so-called "fringe" of the jurisdiction. The fringe areas account for only 45% of the total number of towns in the jurisdiction, yet they account for nearly 80% of the new building permits.

The location of improved roads has also been an important factor in the location of development. Minor civil divisions with improved roads comprise 74% of the jurisdiction, but they account for 95% of the new development. A sample of building permits during 1971-1991 indicates that roughly 50% of new dwellings front improved roads, 23% unimproved roads, and 22% unmapped roads.

Although most home construction occurred on the edges of the jurisdiction, a significant percentage of development and subdivision activity

occurred in the interior. In the 1971-1991 period, roughly 986 building permits (20% of the total) were issued for areas in the interior. New residential development took place in 119 townships which previously had no improved roads. During this same period, 476 subdivision lots (26% of the total) were approved for interior areas.

During the 1971-1991 period, the amount of building activity in the interior steadily increased. From 1971-1975, an average of 20 building permits were issued each year by the Commission for interior areas. From 1976-1984, the annual average was 56 permits, and from 1985-1991, it increased to 73 permits per year.

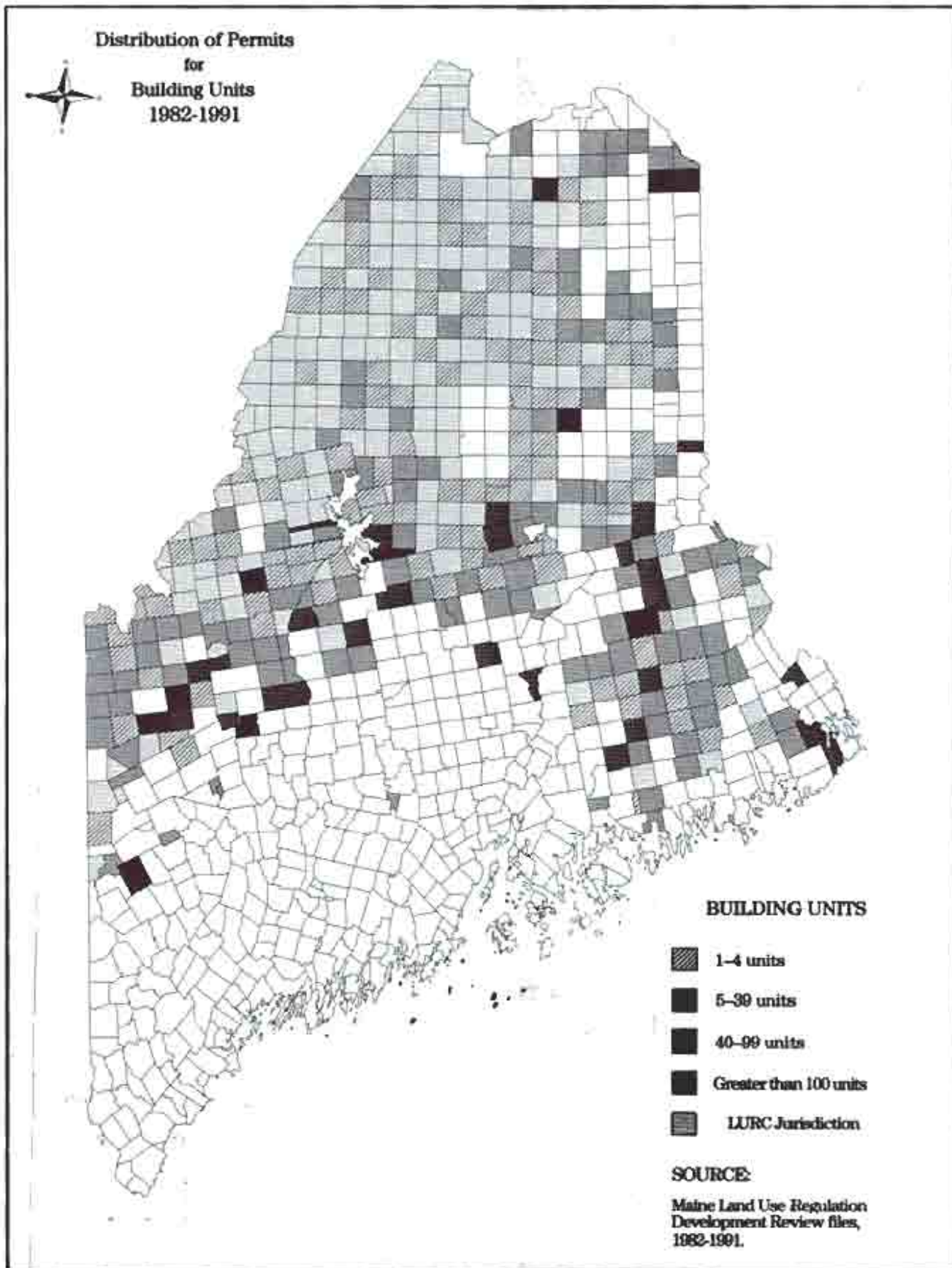
Also significant was the amount of unregulated land division activity. Large lot divisions that were exempt from LURC regulation encompassed 193,000 acres, or 97% of all acreage divided between 1971 and 1991 in the jurisdiction. Additional lots were created under the provision of the LURC law that allows two lots to be created from each parcel every five years without LURC approval. No comprehensive record of the number or acreage of these lots exists, but available information suggests it has been significant.

### Projected Growth

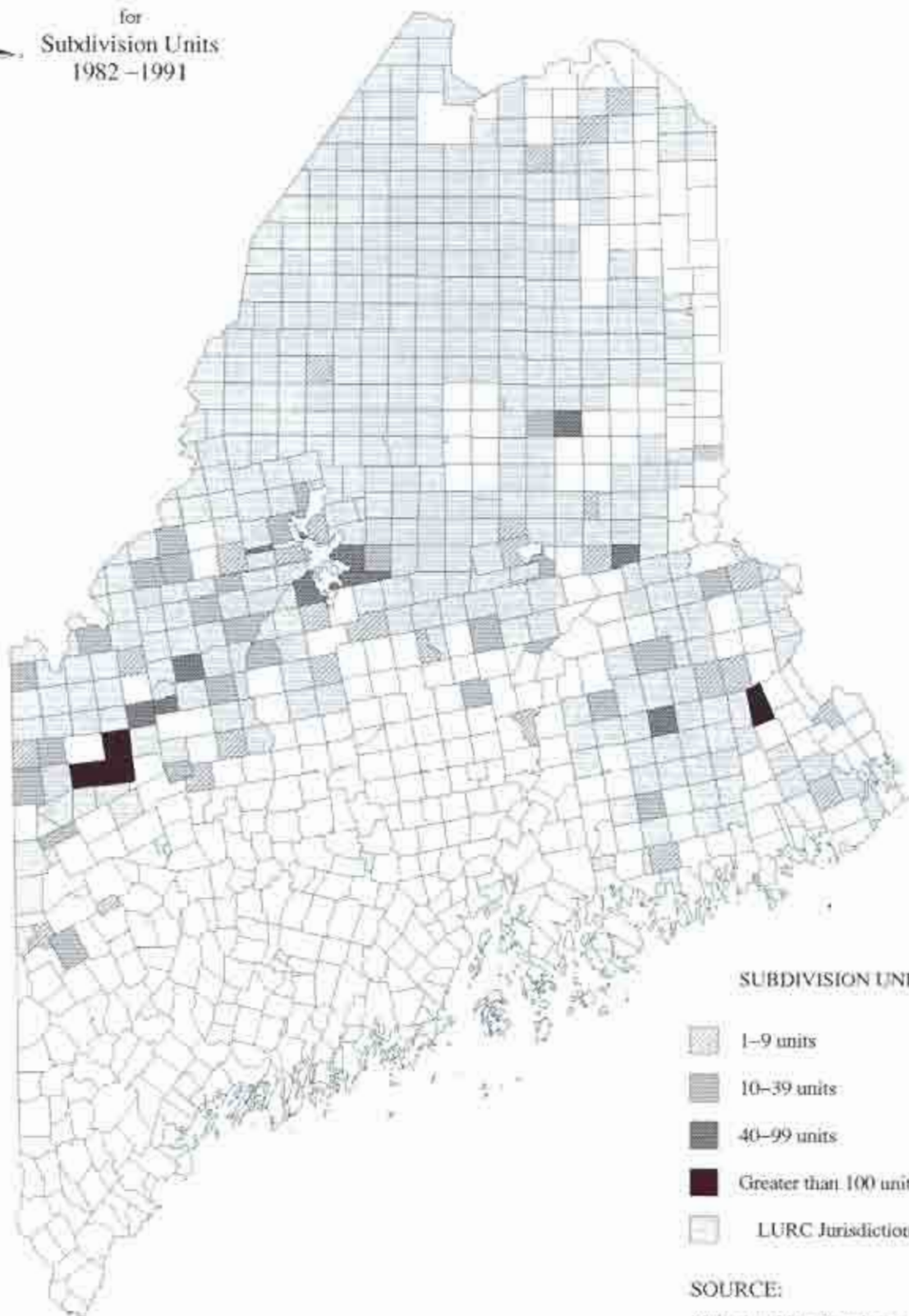
According to a 1993 study by Market Decisions Inc., between 3,000 and 3,500 new residential units, most seasonally occupied, will be built in the jurisdiction between 1990 and the year 2000. This projection is substantiated by LURC permitting data for the 1990-1995 period that indicates 2,028 permits were issued for dwellings.

While the overall rate of growth is projected to remain about the same, the split between year-round and seasonal homes is likely to change. The number of year-round housing units increased at a rate of 1.65% per year in the 1980's, but the study predicts that this will decline in the 1990's to about 1% annually. This decline is due to a number of factors including a dampened economy, the effects of the "baby bust" generation beginning to form its households in much smaller numbers than the now middle-aged "baby boom" generation, and a leveling off in the trend towards smaller households. As a result, it is projected that between 1990 and 2000 there will be a net increase of new year-round households ranging from 350 to 400 in total.

In contrast, the total number of seasonal homes is projected to increase by 23% to 27% over



Distribution of Permits  
for  
Subdivision Units  
1982-1991



SUBDIVISION UNITS

- 1-9 units
- 10-39 units
- 40-99 units
- Greater than 100 units
- LURC Jurisdiction

SOURCE:

Maine Land Use Regulation  
Development Review files,  
1982-1991.



1990, resulting in a total of 2,600 to 3,000 new seasonal units by the year 2000. This rate of growth is similar to the 25% increase in seasonal units during the 1980's. Factors driving demand for second homes cited by the Market Decisions study include the maturing of the baby boom households to an age group which has the highest propensity to own a second home; increased accessibility of remote areas via logging roads; and relative price and availability – rural interior land and houses are less expensive than those in coastal areas.

These seasonal homes are much more likely to be built as permanent second homes with full foundations, insulation, central heating and utilities where available. The discrepancy between Census figures and LURC permit data on new seasonal dwellings supports this finding. While the Census figures classify 30% of new homes as year-round and 70% as seasonal, LURC permit data indicate a 50:50 split. This indicates that roughly a third of "seasonal" units are being constructed as second homes that can be used year-round. These dwellings are more likely to receive intensive use and to be eventually converted to year-round homes.

The Market Decisions study also projected that areas of the jurisdiction within the western and central counties (Franklin, Oxford, Somerset, Piscataquis and Penobscot) will absorb approximately 90% of this new seasonal growth (this area accounted for 88% of the new seasonal units built in the 1980's in the jurisdiction). There has been a longstanding trend toward seasonal development in the western mountain counties. In 1950, this area of the state contained only 18% of the state's seasonal units; by 1990 it contained nearly a third of the total, with seasonal units increasing at a rate that was 3 to 5 times the rate of increase for the rest of Maine.

## Recreational Facilities

### Description

Most recreational pursuits in the jurisdiction are low-to-medium intensity activities which require development of few, if any, facilities or support services. Among the more common examples of recreation-related facilities are sporting camps, tent and recreational vehicle camping areas, lake-side cottages and lodges, and support services related to canoeing, whitewater rafting, and kayaking. In addition, there are public and private sites for picnicking, launching boats, and swimming as well as trails for snowmobiling, hiking, cross-coun-

try skiing, and snowshoeing. (See Recreation section for more thorough discussion of recreational facilities.)

The most intensive recreational development in the jurisdiction is associated with three alpine ski resorts: the Saddleback Mountain Ski Area in Sandy River Plantation near Rangeley, Sugarloaf Mountain Ski Area in Carrabassett Valley, and Sunday River Skiway in Newry and Riley Township. Sugarloaf was once part of an unorganized township that was annexed by the Town of Carrabassett Valley in 1977. However, unorganized communities adjacent to Sugarloaf continue to provide needed support services. Squaw Mountain, a relatively small-scale facility, is also located within the jurisdiction near Greenville.

### Trends

In the 1971-1991 period, recreational development accounted for 275, or about 25%, of the Development Permits issued by the Commission. Roughly 80% of this recreational development was classified as private recreation and 20% as public recreation. Over 70% of recreational facilities were located along shorelines or within riparian areas.

The most significant trend since the 1970's has been the rise of the commercial whitewater rafting industry. This industry is centered on two outstanding whitewater river segments: the West Branch of the Penobscot River and the Kennebec River Gorge. Interest in this activity has spawned more than 10 rafting companies which provide their clientele with food, lodging, equipment, guide services and transportation to and from the river. A number of rafting bases have been constructed in the vicinity of these whitewater segments; several are located along Route 201 in The Forks Plantation.

The commercial rafting industry grew most rapidly during the 1980's, but annual client volumes continue to rise in the mid-1990's. An allocation system imposed by the legislature has limited weekend peak volumes, but continued modest growth is likely due to increased weekday use and more trips on other rivers.

The number of traditional sporting camps has declined throughout this century, but there has been renewed interest in them and improved coordination and promotion by camp owners. Many of these facilities are marginal, labor-intensive operations. Their future success may be tied to increasing their clientele while maintaining the remote character of the camps and their surroundings.

A likely future trend for campgrounds, sporting camps and whitewater rafting operations is diversification into secondary activities as a means of attracting more business. For example, some sporting camps now remain open year-round to cater to snowmobilers and other winter recreationists. Several rafting bases and sporting camps have added campground areas and have dining facilities open to the general public. A number of campground stores cater both to campers and to the public at large. As this trend continues, it may become increasingly difficult to clearly distinguish between different recreational facilities and to assess potential impacts.

After a period of economic transition, the downhill skiing industry appears to be on the upswing in Maine. The two most significant developments over the past two decades have been the emergence of Sunday River Skiway as a major ski resort on the fringe of the jurisdiction and the proposed expansion of Saddleback Mountain Ski area. Continued growth by Sunday River, Saddleback and Sugarloaf can be expected as they compete for larger shares of the regional ski market. Downhill ski areas are likely to continue efforts at attracting more year-round business with activities such as golf, foliage viewing, and mountain biking.

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## Commercial and Industrial Development

### Description

Few nonrecreation-related commercial services and facilities are located within the jurisdiction, as nearby organized areas often provide goods and services. The most common local businesses are general stores, gas stations, restaurants, and home occupations.

Most industry in the jurisdiction is related to wood products or energy production. Chipping mills and saw mills of various sizes and types operate in a number of townships. There are also some small, home-oriented manufacturers such as toy-makers, potters, weavers, and furniture makers.

Hydroelectric power facilities in the jurisdiction include seven projects licensed by the Federal Energy Regulatory Commission (FERC), only four of which have generating equipment in place. Others are storage facilities which enhance flows to downstream generating projects. There are also 13 unlicensed hydro projects, although as of 1996,

FERC is investigating whether these should be licensed. Over the past decade, focus has shifted from constructing new dams to relicensing existing dams. (See Energy Resources section for additional discussion of hydro projects.)

In the early 1990's, there was a high level of interest in the potential of the jurisdiction for wind-generated energy. The costs of wind-generated energy have dropped significantly, and portions of the region have relatively high sustained wind velocities. To date, the Commission has reviewed one major windpower proposal.

Although interest in the state's metallic resources is increasing, commercial mineral extraction plays only a minor industrial role. Mineral exploration has been undertaken in a number of areas. Some gemstone mining occurs in the Western Mountains, generally on a small scale.

Gravel extraction occurs throughout the jurisdiction. Most gravel pits are small operations used for road construction and maintenance or for general construction in the region; several larger pits are located in fringe areas. Peat is also harvested at one site in Hancock County, primarily for horticultural use.

### Overall Trends

Between 1971 and 1991, the Commission issued approximately 1,100 development permits, of which roughly 75%, or 825, were for commercial development other than recreational facilities. Of this total, 27% were classified as facilities related to industrial forestry (e.g. improvements or expansion of sawmills or gravel pits), 35% as governmental, utility or miscellaneous uses, 25% as commercial uses (e.g., retail and services), 6.5% as farming or fishing related, and 6.5% as other industrial uses. Most of these projects or activities were located in fringe areas.

No detailed projections of future commercial/industrial development in the jurisdiction are available. It is likely, however, that the rate of 50 to 60 development permits per year, which has occurred since the mid-1980's, will continue in the 1990's.

## Transportation

### Description

Transportation improvements are both a form of development and a prime determinant of where

development will occur. The dominant transportation mode in the jurisdiction is road travel. While accurate numbers are difficult to obtain, the 1:100,000 scale U.S.G.S. maps (mostly dated in the mid-1980's) indicate approximately 2,000 miles of public roads and 20,000 miles of private roads within the area.

#### Public Roads

The area's approximately 2,000 miles of public roads include arterial routes that allow relatively high speed travel through the region, collector routes that provide important connections between arterials, and local roads that move traffic within communities and provide access to adjacent properties.

Interstate 95 is a limited access four-lane highway that serves as a primary route of travel to the region from points south. The Interstate bisects several townships, but generally stays to the east of the central part of the jurisdiction and to the west of the Downeast area. Interchanges in Howland, T2 R8 NWP (to Lincoln), Medway, Sherman, Island

Falls and Oakfield serve as major gateways to the region.

Arterial routes mostly serve the western mountain and Downeast areas, or pass through fringe areas. Significantly, no arterial routes access the heart of the jurisdiction. Major arterial routes within the jurisdiction include Routes 201, 1 and 9. Minor arterials include Routes 27, 4 and 16 in the Western Mountain area, Routes 2, 2A and 6 in the Downeast region, and Routes 11, 1 and 161 in Central and Northern regions.

Other state routes serve portions of the jurisdiction, but most of these carry less traffic, functioning more as collector roads than arterials. The remaining public roads within the region are county and local roads, with paved or gravel wearing surfaces. Some of these roads serve as important links between state routes; others are lightly traveled.

Repair, maintenance and snowplowing of public roads is carried out by the state, county, or plantation government. Funds for major resurfacing and reconstruction projects are allocated by the Maine Department of Transportation.



*Logging Road east of Moosehead*



## Private Roads

Most of the roads within the jurisdiction are privately owned and maintained. Approximately 20,000 miles of these roads crisscross the area, providing the forest products industry with a vital link between its resource base and markets.

Extensive private road construction began after the cessation of log drives on Maine rivers. Spurred by the rush to harvest trees damaged by the spruce budworm, road construction during the 1980's peaked at an estimated 1,000 miles per year. While the pace of construction has probably slowed, new private roads continue to be constructed, providing improved access to backcountry areas. Of the 1,200 notifications received annually by the Commission, approximately half include some new private road construction or road improvements. Some of the roads built for logging are gated and others are permanently closed after harvesting. According to the Maine Paper Industry Information Office, however, approximately 98% of private roads remain available for public use.

## Other Transportation Modes

Rail service, once a major mover of passengers and freight in Northern Maine, now plays a relatively minor transportation role. The Canadian-Pacific line that runs between Vanceboro and St. Croix has historically been an important rail link for the paper companies and has maintained limited passenger service. Freight service on that line is expected to continue, but the future of passenger service is uncertain. Freight is also carried on other lines in Aroostook, Washington and Penobscot Counties.

Air travel is limited to nonscheduled service by float plane and at small airfields in gateway communities. Ferry service is available to Monhegan and Matinicus – two coastal island communities in the Commission's jurisdiction.

## Future Trends

Most future roadbuilding in the jurisdiction will be private roads. At this time, there are no plans for construction of any new state routes through the jurisdiction. A feasibility study is planned for a new or improved route from Houlton to Fort Kent. The main changes to the public road system will occur as the result of improvements made to state and county roads and construction of new roads within subdivisions.

The pace of private road construction has slowed since the 1970's and 1980's, but the amount of road construction each year is still significant. Based on the road construction notifications submitted to the Commission by landowners, an estimated 500 miles of roads are constructed annually. Much of this involves construction of spurs and winter roads off of the major access roads. Some road construction entails the reopening of older roads that have not been used since the time of a previous harvest.

## Other Infrastructure and Services

Other public facilities and services within the jurisdiction include fire and police protection, education, solid waste disposal and public utilities. These facilities and services are most available near fringe areas, where the majority of the year-round population resides.

## Public Safety

Although a few towns and plantations have their own fire and rescue units, fire protection and emergency services for most unorganized communities are provided through county government, which arranges contracts with neighboring organized towns. Forest fire protection is provided by the Department of Conservation, Maine Forest Service. County sheriff departments, the Maine State Police and plantation police are responsible for law enforcement.

## Education

Public education for residents of the jurisdiction is available either from state-operated schools or from adjacent educational units. As of 1996, primary or secondary schools were located in Edmunds, Connor and Kingman townships, Rockwood Strip (T2 R1) and Sinclair (T17 R4 WELS). Besides their educational function, these facilities also provide community meeting space and opportunities for organized recreation.

## Solid Waste Disposal

The disposal of household and commercial wastes are handled in a variety of ways. Plantations run their own solid waste facilities or pay to use facilities in neighboring towns. In the unorganized

townships, county commissioners make arrangements for solid waste disposal. Communities on the periphery of the jurisdiction tend to use landfills in nearby organized towns.

Increasingly, however, the jurisdiction is being considered as a potential site for regional and statewide solid waste facilities. This is due in part to the large land ownership patterns, the availability of relatively inexpensive land, and low population densities. Areas within the jurisdiction were under active consideration as low-level radioactive disposal sites prior to agreements being reached with other states to send such waste elsewhere.

Spreading of paper mill sludge, agricultural wastes, and other residuals also occurs within the area. Most of this spreading occurs on lands owned by the companies that generate the wastes.

### Water and Subsurface Waste Disposal

Only a small portion of the dwellings and facilities in the jurisdiction are served by public sewer or water. Most of these users are adjacent to larger, organized communities with sewer or water districts. The vast majority of dwellings, businesses, and other facilities draw water from wells, springs, or nearby surface water sources and dispose of sewage in on-site septic systems or privies.

According to the 1990 Census, 63% of the housing units in the jurisdiction have individual wells, 12% have public water, and 25% have some other form of water supply. The Census also reported that 73% of the units have septic systems, 7% had public sewer, and 21% had another means of waste disposal, most likely, pit privies. It is probable that some of the housing units served by "public" facilities rely on shared wells or clustered septic systems located near the sites.

The Commission applies the State's Subsurface Waste Disposal Rules and its own lot size standards to assure that new systems are located on suitable soils and are properly designed and constructed.

### Public Utilities

Electric and phone service are the main public utilities serving the jurisdiction. While most year-round homes have electricity and telephones, a substantial percentage of seasonal homes have neither. These homes are typically located in more isolated areas that are distant from existing utility distribution lines.

The main providers of electricity are Central Maine Power, Bangor Hydro-Electric Company, and Maine Public Service Company. Several smaller electric utilities provide power as well. The power distribution system is comprised of transmission lines, which transport high voltage electricity long distances, and distribution lines, which carry power to homes and businesses.

New England Telephone Company (NYNEX) is the main provider of local phone service, but several smaller independent phone companies provide service as well. Modular phone service is also now available to many locations within the jurisdiction.

### Trends

In general, the communities of the jurisdiction will continue to rely on facilities and services from organized towns. Population and housing growth will continue to increase demand for services and facilities, but if most development is located relatively close to organized areas, service costs per new dwelling unit and environmental impacts will likely remain low.

In less populated areas of the state, school districts have been consolidating. The slow growth in the jurisdiction's year-round population makes an increase in demand for education facilities unlikely. The most noticeable education-related impact may be on the governments of high-growth communities which must pay increased educational costs and provide bus service to serve new year-round development and conversions in areas that were previously only seasonally occupied.

Due to the closure of town dumps throughout the state, there may be a need for new landfills in environmentally suitable locations. Siting these facilities in more populated areas is often difficult due to local opposition; townships near organized areas may be increasingly viewed as locations for waste disposal sites.

Between 1971 and 1991, the Commission issued 525 permits for utility extensions. Many of these permits allowed short connections to existing utility lines. A number were for longer extensions to serve existing or new development. One permit was for a major power transmission line in Washington and Hancock Counties. Maine is located between a major regional user of power (southern New England and New York) and several power producers in the Canadian provinces. It may be that Maine continues to be viewed as a corridor

for transmission of energy and energy-producing natural resources.

As utilities seek new customers and owners of camps request electric and phone service, applications for future extensions into more remote areas are likely. Extension of utilities into an undeveloped area generally makes it more attractive for year-round development. A more significant, ongoing trend, however, is the extension of electric power to older seasonal developments that previously relied on hand pumped water and privies.

While verbal communication remains the most common use of telephones, technological advances are revolutionizing the use of phone lines as a vital link in an expanding communication network. Interconnected computers and facsimile machines now allow for rapid transfer of information over long distances, and it is likely that many residents of the jurisdiction will want to take advantage of these technologies. Some parts of the area are served by cable television as well, and cable lines may also become important links for a variety of communication technologies. These developments provide increased opportunities for those who wish to live in relatively remote areas and work out of their homes.

**4**

## **Areas with Special Planning Needs**

Development in the jurisdiction has generally been concentrated along shoreland areas, around ski resorts, and near organized towns. The first Comprehensive Land Use Plan, adopted in 1976, identified several areas of rapid growth, including the Rangeley Lakes, Moosehead Lake and Carrabassett Valley region.

Examination of growth trends indicates that these regions continue to attract development. These three areas are part of the Western and Central Mountain regions, which received approximately 88% of the jurisdiction's new seasonal housing during the 1980's. These same regions are projected to receive approximately 90-92% of new seasonal homes, or 2,500-2,600 units, in the 1990's.

These areas also possess concentrations of high-value natural resources that are potentially threatened by continued high rates of growth. In its planning and zoning efforts, the Commission will pay particular attention to these areas to ensure that development is accommodated without compromising their special qualities.

In addition to these high-growth areas, several other regions or communities experienced moderate growth during the 1970's and 1980's, or possess characteristics that make significant future growth likely. Some of these areas have high concentrations of recreational and natural values that attract development; other communities owe their growth to their accessibility or location near a population or employment center. The Millinocket region is particularly worthy of note because of its abundance of high-value resources, its accessibility and its proximity to a major job center. The area is also an excellent candidate for regional planning to ensure future growth does not erode its principal values.

### **Rangeley Lakes Area**

The multi-recreational resort nature of this region, which includes the Rangeley Lakes and Saddleback Mountain Ski Area, has made it particularly attractive to residential and recreational development. It has been the jurisdiction's most rapidly growing area. The area has an abundance of high-value natural resources: numerous large lakes – some relatively undeveloped – and panoramic views from encircling hills and ridges, which are also traversed by the Appalachian Trail. Yet the area is accessible by several state routes and is within 20 miles of a number of population and employment centers, including Rumford/Mexico, Farmington and Bethel.

Rangeley, Dallas, and Sandy River plantations have been the focus of the most intensive development permit activity in the jurisdiction. Between 1971 and 1991, a total of 565 new building permits were issued in these three plantations. Census data shows an increase of 472 residential dwelling units between 1970 and 1990, indicating that, as of 1990, almost 100 pending building permits had not yet been exercised in these three communities. Nearby Lincoln and Magalloway plantations and Adamstown Township have experienced significantly less development activity, but their location and extensive lakefront areas make them attractive areas for future growth.

The plantations and townships of the Rangeley Lakes are part of the jurisdiction's Western Mountain region (Oxford and Franklin Counties), which grew in population by 14% from 1980-1990 and 47% from 1970-1990. The region's share of the total number of seasonal homes in the jurisdiction increased from 14% to 17% during the 1980's, and is expected to increase further.



### Moosehead Lake Area

Maine's largest lake is the attraction for development in this high growth area. The area is also a gateway to the North Woods and boasts a ski area (Squaw Mountain), Mt. Kineo, the headwaters of the Kennebec River and numerous other high-value lakes and ponds. The southern and western portions of the region are accessible by state routes, with well-maintained private routes serving most other areas.

Greenville is the region's employment center, employing 105 jurisdiction residents according to 1990 Census figures. Jobs in recreational services are projected to grow by 15-20 % over the next decade.

In the early 1970's, most new development on Moosehead Lake was located at its southern end, in Beaver Cove Township and Harford's Point. In the 1980's, a significant number of new building permits were issued in Beaver Cove, Lily Bay Township, Rockwood Strip, and Tomhegan Township. While these areas accounted for 70% of the new building permits issued on the lake between 1971 and 1991, new permits were issued in virtually every other township surrounding the

lake as well. In the twenty year period, a total of 452 building permits were issued for new residential structures in the townships fronting Moosehead Lake.

The population of the Central Mountains region (Penobscot, Piscataquis, Somerset Counties) grew by 16% from 1980-1990, 30% from 1970-1990. The Central Mountain area also has the largest share of seasonal homes (51% in 1990).

### Carrabassett Valley - Flagstaff Lake Area

As with the Rangeley Lakes area, growth in the Carrabassett Valley region is driven by the recreational attraction of a large ski resort (Sugarloaf USA) and proximity to organized towns. High-value natural resources and recreational resources in the area include the Bigelow Range, Flagstaff Lake, and the Appalachian Trail. The area is accessible by several major state roads and is within 30 miles of Farmington, Skowhegan and Madison.

While the Town of Carrabassett Valley is no longer within the Commission's jurisdiction, growth has continued to spill into nearby areas, including



*Upper Richardson Lake in the Rangeley area*

Coplin Plantation, Wyman Township, Freeman Township and Salem. Spring Lake Township, bordering Flagstaff Lake, and Lexington Township, within 25 miles of Sugarloaf and 15 miles out of the town of Madison, have also attracted new growth. A total of 450 permits for new residential structures were issued in these six towns between 1971 and 1991. Approved subdivisions in these towns resulted in 225 new lots during the 20-year period, with over 80% of these lots in three townships: Wyman Township, Spring Lake Township, and Coplin Plantation.

The Carrabassett Valley region straddles the jurisdiction's Central and Western Mountain regions, both of which saw noteworthy population growth between 1970 and 1990, and which are expected to receive most of the new residential development during this decade.

#### Millinocket Region

While this area did not experience rapid growth during the 1971-1991 period, its natural resource and recreational attributes and its relative accessibility make future growth likely. The region's main attractions are Mt. Katahdin and Baxter State Park, the West Branch of the Penobscot River, numerous high-value lakes and the terminus of the Appalachian Trail. The area also serves as a major gateway to the North Woods. The region is accessible by state routes to Millinocket, which is only 15 miles west of I-95, and by a number of well-maintained private roads, including the Golden Road.

Millinocket is the region's job center, employing 109 jurisdiction residents according to the 1990 Census. Employment at the area's paper mills may decline, but the town is pursuing recreation-related economic development. The most significant growth in the area has been experienced by two townships west of Millinocket that have high-value lake resources: T4 Indian Purchase, (68 building permits) and T1 R9 WELS (85 new building permits). T4 Indian Township contains North and South Twin Lakes and fronts Middle Jo-Mary Lake, a Management Class 3 lake that is potentially suitable for development. T1 R9 WELS fronts Ambajejus Lake. Pemadumcook Lake in nearby T1 R10 WELS has also been identified by the Commission as a Management Class 3 Lake. The township immediately west of Millinocket, T3 Indian Township, has experienced relatively modest growth (24 building permits), but easy access to two smaller lakes, Elbow and Quakish Lake, make future growth pressures there likely.

#### Other High Growth Areas

There are other pockets of notable growth throughout the jurisdiction where proximity to populated areas or high-value recreational resources, particularly lakes, is driving more rapid development than in other parts of the jurisdiction. These include:

##### Western Region:

- Significant year-round and seasonal home development has occurred in Albany Township in Oxford County (117 new building permits between 1971 and 1991). The township is nearly surrounded by organized communities, and the towns of Bethel, Norway and Waterford are nearby. Part of the township is within the White Mountain National Forest.

##### Central Region:

- Ellitsville, located less than 25 miles from both Greenville and Dover-Foxcroft, possesses a number of small, pristine ponds, Lake Onawa, and scenic mountains traversed by the Appalachian Trail. The township has attracted significant permanent and seasonal home development (57 new building permits between 1971 and 1991).

##### Eastern Region (Washington, Hancock, and Eastern Penobscot counties):

The main attributes of this area are proximity to the ocean, a high concentration of lakes and accessibility from state routes. Calais and Baileyville serve as job centers, employing 105 and 117 jurisdiction residents respectively in 1990. High growth communities during the 1971-1991 period include:

- *Edmunds and Trescott Townships* (150 new building permits) with extensive ocean frontage between the cities of Eastport and Machias;
- *Lakeville* (171 new building permits) with numerous lakes, including Sysladobsis and Upper Sysladobsis, and located within 25 miles of I-95 and the population and employment center of Lincoln;
- *Osborn Plantation and T28 MD* (133 new building permits), both with desirable lakes

and relatively easy access via Route 9, and within roughly 25 miles of Ellsworth and 35 miles of the Bangor/Brewer urban area;

- *T41 MD* (52 new building permits and 68 new approved subdivision lots), with Nicatous Lake, and approximately 40 miles east of Orono/Old Town;
- *No.21 Township* (126 new approved subdivision lots and 28 new building permits) on Big Lake in Eastern Washington County; and
- *Baring Plantation* (43 new building permits), adjacent to Calais and containing Meddybemps Lake as a draw.

#### Eastern Aroostook Region:

A number of communities in close proximity to major population centers in Aroostook County have experienced higher than average growth rates between 1971 and 1991, including *Connor Township and Caswell* (158 new building permits). Nearby Caribou and Limestone employed 182 and 139 jurisdiction residents respectively in 1990. The closing of the military base in Limestone may affect future demand for housing in these communities and neighboring areas.

*Cary Plantation* on the outskirts of Houlton and within 10 miles of a major system of lakes bordering Maine and New Brunswick, has also experienced moderate growth (62 new building permits). Houlton is a nearby employment center (major industries are wood products and food-related) for jurisdiction residents, employing 122 according to the 1990 Census.

Two other communities have had notable development drawn by recreational attractions: *Winterville Plantation* (62 new building permits) with St. Froid Lake, less than 25 miles from Fort Kent; and *Mount Chase* (119 new building permits and 63 new approved subdivision lots), located near Patten, with scenic mountains and lakes.

#### Coastal Islands

Compared with high-growth inland areas, coastal islands under the Commission's jurisdiction experienced modest rates of development between 1971 and 1991. These islands, nonetheless, deserve special consideration due to the high value and fragility of their natural resources and their attractiveness for future seasonal development. Even a relatively low rate of development can have a significant impact on island resources or landscapes.

The most building activity has occurred on the two islands with year-round populations: Monhegan and Matinicus Plantations. During the 1971-1991 period, 18 building permits were issued for new dwellings on Monhegan, 12 on Matinicus. Of islands with only seasonal populations, those with the most housing activity were Pleasant Island (10 permits), Hewitt Island (6 building permits) and Great Pond or Inner Island (4 building permits). A 12-lot subdivision was approved for Louds Island, and a Resource Plan for Metinic Island authorized 14 houses on the northern end of the island.

#### Planning for Development in these Areas

Development is likely to continue in most of the areas identified above due to the attractiveness of their high value resources and their general accessibility. In planning for future development, the Commission will strongly focus on these areas, particularly on high-value areas with the greatest growth potential.

The challenge for the Commission is to allow growth to be accommodated in these areas without compromising the resources that make them so special. Balancing development and conservation in these areas is the key to maintaining their high values, particularly their recreational appeal. A more specialized and localized planning and zoning approach is appropriate in these instances, and is discussed in the next section.



# Evaluation of Development Trends and the Commission's Approach to Development

Since its inception, the Commission has recognized the importance of guiding new development to appropriate locations as an effective means of protecting the jurisdiction's principal values and minimizing conflicts between them. Two central principles of the *Comprehensive Land Use Plan* (1983) are "discouraging growth which results in sprawling development patterns" and encouraging "orderly growth within and proximate to existing compatible developed areas, particularly towns and communities."

The Commission's policy of encouraging new development adjacent to existing development, or in areas already having public services, also keeps the cost of providing public services, facilities and utilities as low as possible. This policy is consistent with the Commission's intent that needed public services be available without unreasonable expense.

This plan update provides an opportunity to evaluate growth trends since 1971 and to assess the effects of this development pattern on the jurisdiction's principal values. It also provides an opportunity to evaluate the effectiveness of the Commission's existing policies and standards in guiding development.

## Principal Values and Location of Development

To effectively evaluate growth trends and the Commission's approach to development, one must first have a clear understanding of the values that make the jurisdiction so special. The Commission has identified four principal values that define the jurisdiction's distinctive character:

- The economic value of the jurisdiction for fiber and food production, particularly the tradition of a working forest, largely on private lands. This value is based primarily on maintenance of the forest resource and the economic health of the forest products industry. The maintenance of farm lands and the viability of the region's agricultural economy is also an important component of this value.

- Diverse and abundant recreational opportunities, particularly for primitive pursuits.
- Diverse, abundant and unique high-value natural resources and features, including lakes, rivers and other water resources, fish and wildlife resources, ecological values, scenic and cultural resources, coastal islands, and mountain areas and other geologic resources.
- Natural character values, which include the uniqueness of a vast forested area that is largely undeveloped and remote from population centers.

While these values collectively define the jurisdiction, they are not represented equally across its towns, plantations and townships. Some areas have abundant high-value natural resources (e.g. numerous pristine ponds) or a unique physical feature (e.g. Gulf Hagas). Other areas lack distinctive natural resources, but serve as productive forestlands or contribute to the jurisdiction's natural and cultural character.

Many areas on the fringe of the jurisdiction are accessible, are near population centers, and are relatively developed. Some of these fringe areas, however, have significant natural resource and recreational values (e.g. the Rangeley lakes region), and face considerable development pressures that have the potential to undermine these values. Other fringe communities lack significant resource values and can accommodate development with the least amount of impact on the jurisdiction's principal values.

Remoteness and the relative absence of development are perhaps the most distinctive of the jurisdiction's principal values, due mainly to their increasing rarity in the Eastern United States. These traits also enhance other values, particularly recreational opportunities and natural resources. Fishing on a pristine pond surrounded by thousands of acres of undeveloped land, for example, is very different from fishing on a similar pond in a more populated area. The value of natural resources is generally enhanced when they are part of a large, undisturbed area, especially one that encompasses entire watersheds or ecosystems.

Remote, undeveloped qualities are also particularly sensitive to permanent changes in the landscape resulting from development. The remote character of a pristine pond, for instance, may be lost long before development threatens water quality or wildlife habitat. These values may be difficult to quantify but they are integral to the jurisdiction's identity and to its overall character.

## Evaluation of Development Trends and Impacts

### Amount

During the 1971-1991 period, the Commission issued 5,046 permits for new dwellings. This amounts to about 250 new residences per year for the jurisdiction. During that same time period, the Commission issued roughly 50 permits per year for nonresidential structural uses. Over the remainder of the decade, permits for residential dwellings are expected to continue at 250 to 300 per year, with nonresidential permits staying at the 50-per-year level.

The Commission has concluded that this amount of development, by itself, is not a threat to the jurisdiction's values, and that 2,500 to 3,000 new dwellings and 500 nonresidential facilities can be accommodated over the next 10 years without compromising the jurisdiction's values if they occur in appropriate locations and in a compact development pattern.

### Location

Most development has occurred in fringe areas where roads, services and jobs are available. Nearly eighty percent of new building permits issued in the 1971-1991 period were located in communities that abut organized towns.

New development, however, has gravitated toward fringe areas with high natural resource values. Fourteen fringe communities in the Rangeley and Moosehead Lake regions accounted for over 20% percent of the building permits issued during the 1971-1991 period. Roughly 80% of development during the 1990's is expected to occur in the Western and Central portions of the jurisdiction, which include the Rangeley Lakes and Moosehead Lake regions.

Interior areas have experienced considerably less growth, but the 20% of new building permits that occurred there over the last two decades is still significant. Some relatively remote townships, such as T41 MD and Spring Lake Township, experienced

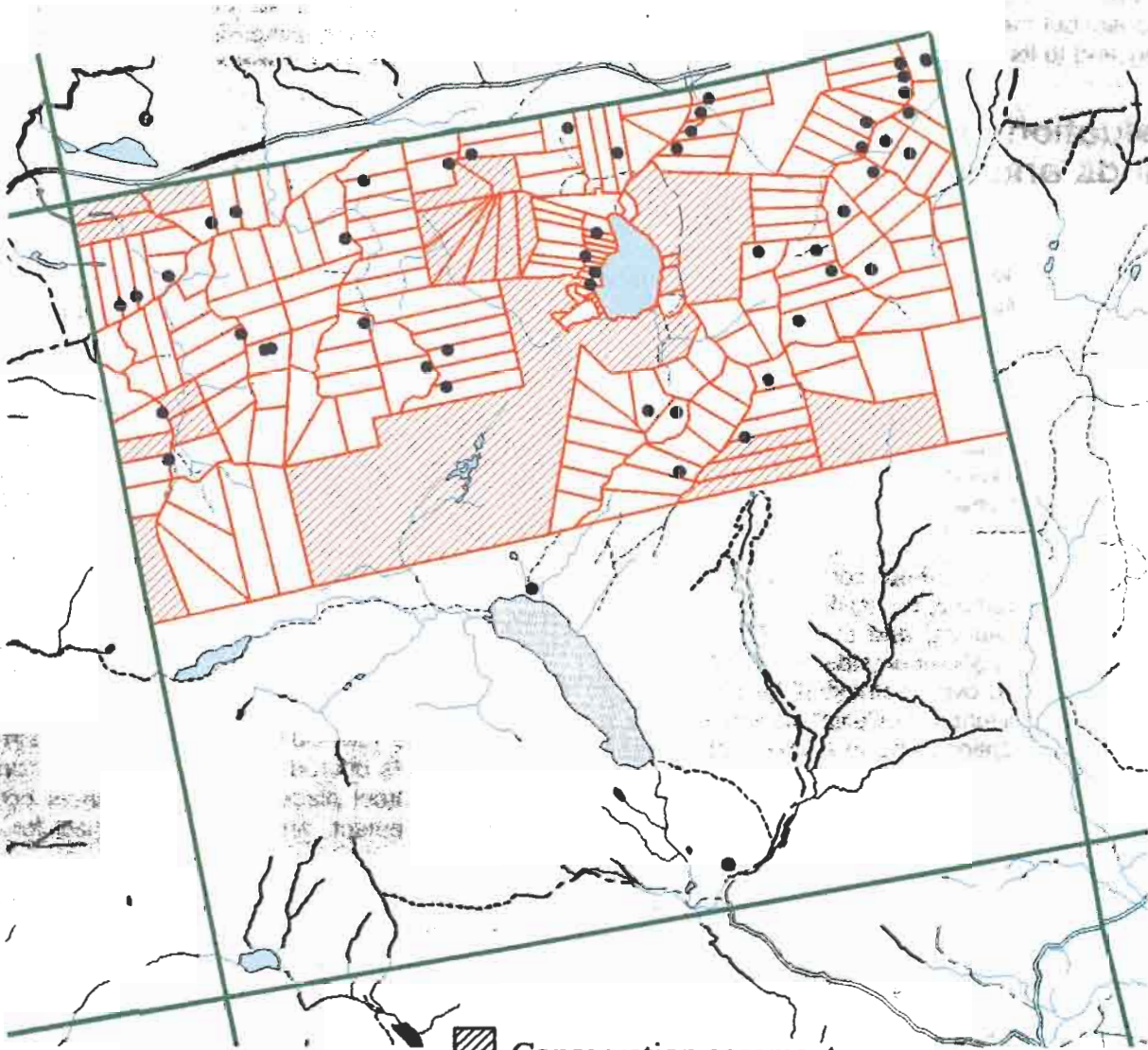
considerable development. Thousands of miles of new land management roads were constructed in the interior, creating a road infrastructure that will contribute to additional development pressures. And an estimated 193,000 acres of land were divided without Commission review. Most of these lot divisions took place either in the Commission's General Management Subdistrict or in the Great Pond Protection or Shoreland Protection Subdistricts, with a significant percentage occurring in interior areas (see map on page 123).

In several instances, large lot divisions dramatically transformed the landownership patterns of interior townships over a relatively short period of time. In 1987 for example, the northern half of one township was under single ownership and undeveloped except for a sporting camp on a relatively pristine pond. Over a period of five years, the area was platted into 188 lots, ranging in size from 40 to 270 acres. Some of these lots received no review from the Commission because of statutory exemptions; others received after-the-fact review in which the appropriateness of the location was not considered. In the early 1990's, the existing sporting camp was converted to a 7-unit residential condominium, and an adjacent parcel was subdivided into another 20 lots, using the former sporting camp to demonstrate "adjacency" under the Commission's rezoning requirements. In 1992-93, revisions of the 1987-88 large lot plats resulted in a total of 134 lots offered for sale, 19 lots plus one 2,140 acre parcel placed under permanent conservation easement, and 35 lots retained for 5 years.

Since 1988, 55 building permits have been issued for the construction of dwellings on lots in this township. Without any more land divisions, over 100 additional dwellings could be constructed, with review by the Commission limited to site-specific considerations such as soil suitability and setbacks (see map on page 116).

In another more remote township, lot creation and subsequent development has dramatically changed its character. The township was in double ownership until 1987 when the western half of the township, comprising over 9,800 acres, was sold. This area was divided into two small lots on a pond and 13 exempt large lots in backcountry areas ranging from 520 to 1,290 acres. Several other lots were created through gifts and other divisions exempt from subdivision review. Between 1987 and 1997, 27 building permits were issued for lots in this township. Between 1995-97, three of these

# Example of Land Division Exempt from Subdivision Review



 Conservation easement

1987 - 1996

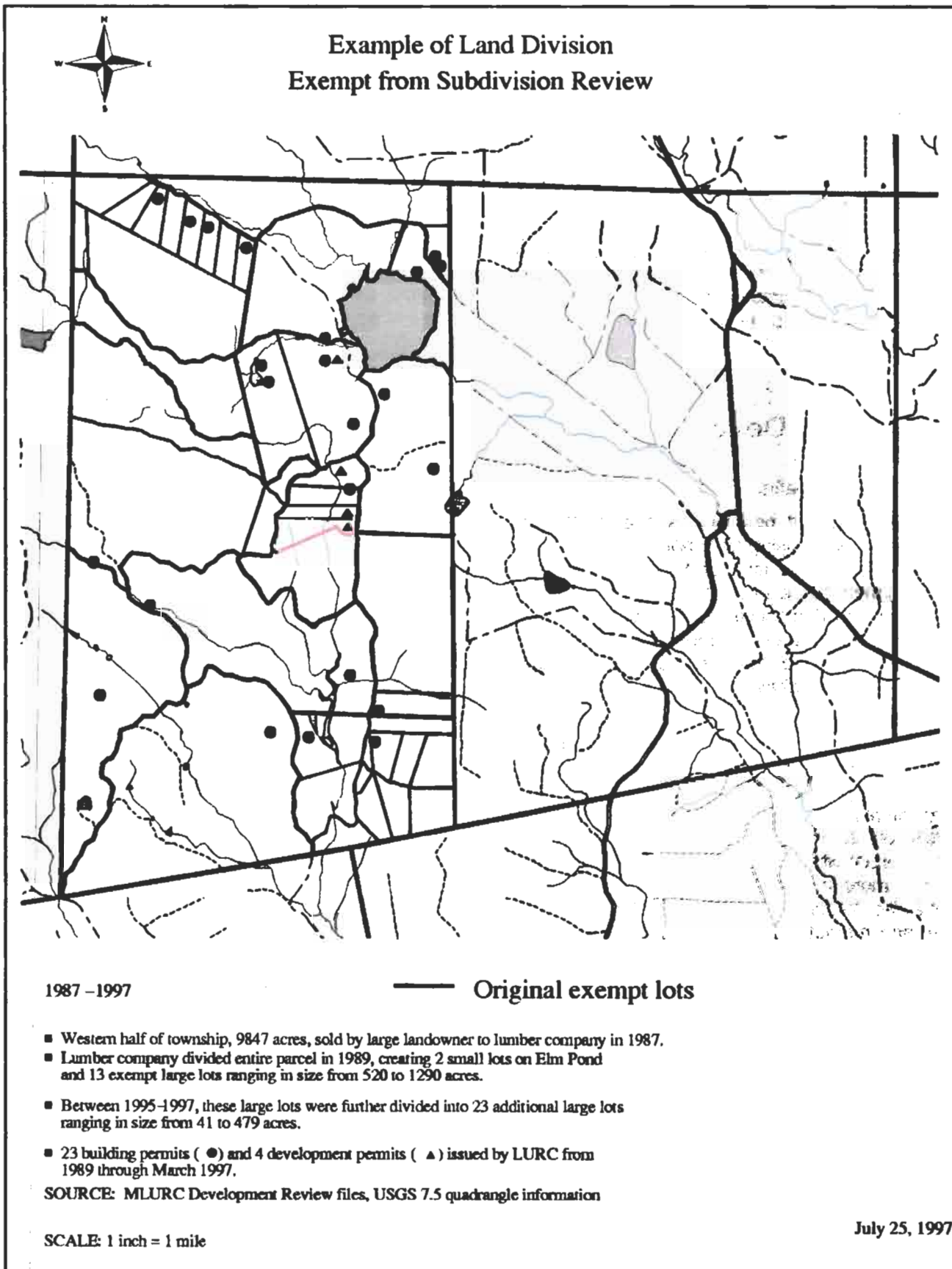
- Northern half of township, over 11,000 acres, sold by large land owner to land development company in 1987.
- Existing sporting camp facility on 45 acres sold in 1988.
- Land development company filed plats in 1987 and 1988 for remainder of parcel, laying out 188 exempt large lots ranging in size from 40 to 270 acres.
- 1991 subdivision and 1992-93 revisions of 1987-88 large lot plats resulted in a total of 134 lots offered for sale, 19 lots plus one 2,140 acre parcel placed under permanent conservation easement, and 35 lots retained for 5 years.
- LURC issued building permits for 55 residential structures ( ● ) from 1988 through 1996.

SOURCE: MLURC Development Review files, USGS 7.5 quadrangle information

SCALE: 1 inch = 1 mile

July 25, 1997





large lots were further divided into 23 additional large lots ranging in size from 41 to 479 acres (see map on page 117).

The pattern of lot creation described above is a significant departure from the jurisdiction's historical pattern of development. Prior to 1970, most scattered development in the interior of the jurisdiction was in the form of relatively primitive camps on small lease lots. For the most part, the pattern of large landholdings remained unbroken. The creation of a significant number of new lots in interior areas – especially lots in the 40- to 499-acre range which are so consumptive of land for a building lot – is unprecedented, as is the trend of seasonal dwellings being built or improved as permanent second homes.

## Impacts of Development

### Evaluation of Benefits

Development between 1971 and 1991 has provided jobs, housing and improved services and facilities for the residents of the jurisdiction. Some development has also supported or enhanced the jurisdiction's principal values. New businesses and facilities related to wood products have reinforced and strengthened the jurisdiction's role as a diverse, working forest.

The development and improvement of sporting camps, campgrounds, individual campsites and boat ramps during the 1971-1991 period have enhanced primitive recreational opportunities, as has the expansion of the private road and trail network. Ski area expansion and the growth of the commercial whitewater rafting industry have supported more intensive recreational uses in particular areas. Tourism is a mainstay of Maine's economy, and recreational development in the jurisdiction has contributed to this sector.

New development has benefited local building contractors and suppliers. Some forms of development, particularly commercial and industrial uses, have generated substantial tax revenues while requiring a minimum of services and facilities.

Residential development has mixed benefits. The construction of year-round dwellings has provided often affordable housing to existing residents and newcomers. New year-round residents can serve to invigorate established communities, buttress the local labor force, and provide clientele to local businesses. Seasonal development can also

benefit local retail and service establishments and provide Mainers and visitors with opportunities to enjoy the jurisdiction's outstanding recreational resources.

New residential development is often viewed favorably from a fiscal standpoint because of increased tax revenues. The costs of added services and facilities associated with residential development, however, usually more than offset tax revenues. This is particularly true with year-round housing requiring a full range of services, including education. New year-round housing has been least costly to serve when located near facilities and services in adjacent organized communities.

Seasonal housing requiring few services is most likely to yield fiscal benefits. But the location of many seasonal homes away from existing services and facilities increases potential service costs. During the 1971-1991 period, seasonal housing has increasingly been constructed as permanent second homes geared to multi-season use and possible conversion. The fiscal benefits of seasonal housing can therefore be limited or fleeting, particularly second home development in more remote areas.

Remote camps are a form of low-impact seasonal development that may be appropriate in many locations where second homes may not. Under the Commission's rules, remote camps are defined as dwellings "consisting of not more than 750 feet of gross floor area that is not served by any public utilities, except radio communications." These structures may best approximate the primitive hunting and fishing cabins that have long been scattered throughout the jurisdiction. This type of seasonal development is characterized by low service cost and low impacts; at low densities, it may be most conducive to maintaining the values of interior areas.

### Evaluation of Adverse Impacts

Some adverse impacts are easy to identify and to avoid or mitigate; others are difficult to recognize or prevent. Full consideration of adverse impacts requires keeping abreast of scientific research and documentation, while recognizing that many impacts are subtle and incremental. Sometimes, by the time degradation of a value is clearly detected, the value may be lost, or remedial action infeasible. The Commission, therefore, will approach the identification of potential adverse impacts with a balance of good science and reasonable foresight.

In evaluating the impacts of development, the Commission has focused on residential construction because it is by far the most common form of structural development in the jurisdiction. The most prevalent type of residential development – second homes – is most likely to be located in areas with high-value resources.

Recreational facilities and other commercial and industrial activities also have potential for significant adverse impacts on the jurisdiction's principal values. However, these types of development are likely to occur at lower densities, and their impacts are likely to be project specific rather than cumulative. (Some of the potential impacts associated with these larger developments are discussed in sections on recreational resources, energy resources and geologic resources.)

The Commission has determined that the development that occurred between 1971 and 1991 had minimal adverse impacts on a number of distinctive natural resources that are clearly tied to a physical feature or location. These resources include deer wintering areas, high mountain zones, a number of remote, pristine ponds, large non-forested wetlands, Class A rivers and selected recreational trails. The most effective method of minimizing adverse impacts on these types of resources is to guide development away from them, and over the past two decades the Commission has effectively pursued this approach. Landowner stewardship or lack of accessibility has also contributed to the protection of some of these resources.

Not all of the jurisdiction's principal values, however, are linked to a distinct physical feature or location, or confined to a particular zoning district. In fact, as previously mentioned, many values are tied to the maintenance of large blocks of undeveloped forestlands. Values such as fish and wildlife habitat, ecological diversity, water quality and forest resources can be significantly affected by development activities that occur outside of specific protection zones or buffers. Values associated with primitive recreation opportunities and remote, undeveloped character can be similarly affected.

The Commission has determined that the development pattern that has taken place since 1971 is not conducive to protecting these types of values. A significant amount of development occurred in interior areas on lots that received no Commission review as to the appropriateness of their location for future residential growth. The pattern of land division and development evident in

interior areas such as depicted by examples in this plan is clearly less than optimum for preserving the special values of these areas.

The most likely impacts on principal values from such patterns of development include:

- Loss of productive forest land and reduction in productivity of forestlands divided into smaller ownerships.
- Conflicts between residential uses and other uses of the forest. Development of remote areas typically results in increased nuisance complaints regarding forest practices, recreational use, and wildlife.
- Negative impacts on wildlife habitat and ecological values due to permanent clearing and conversion of land to development, intrusions into riparian zones and other habitat, and increased erosion and sedimentation.
- Degradation of water quality as a result of incremental development in sensitive watersheds or on lakes with high concentrations of existing development.
- Visual impacts on previously undeveloped roadsides, waterbodies, and hillsides.
- Loss of primitive recreational opportunities and natural character values as more remote areas are developed and access is improved.
- Increased demand for community services for dispersed development in more isolated areas, resulting in negative fiscal impacts on communities and taxpayers.

The location of most development in fringe areas is a favorable trend from the standpoint of protecting the values of interior areas. But much of this development occurred in fringe areas with high natural resources values, and impacts on these values need to be considered as well. The Rangeley Lakes and Moosehead Lake regions received considerable development during the 1971-91 period, and will likely continue to be the principal growth areas in the jurisdiction. While well-planned growth is appropriate in these areas, a haphazard growth pattern has the potential to degrade the attractiveness of these areas as recreational centers, and ultimately their tourist-based economies.

Some of the growth in these areas has occurred in a compact manner near the regional

centers of Rangeley and Greenville. Other development has extended into more remote townships, leapfrogged along shorelines, or appeared conspicuously on hillsides overlooking scenic lakes. The most likely impacts on the values of these regions are incremental effects on scenic values and water quality, and reductions in the overall quality of recreational opportunities, particularly on high-value lakes. Loss of some productive forest lands is to be expected in such high growth areas, but a more compact development pattern would have resulted in less impact on these resources.

The degree to which development occurring in the 1971-1991 period actually eroded the jurisdiction's values – either in the interior or in fringe areas – is open to debate. There will always be honest disagreement about the extent of the problem depending on one's perspective and the degree of conservatism used in evaluating impacts. For example, the Department of Inland Fisheries and Wildlife believes that development so far has had minimal impact on fish and wildlife. But the agency is concerned about the amount of development that has occurred along lakeshores and other riparian areas and the longer-term impacts of this type of development pattern.

The Commission feels that a strong case can be made that elements of the jurisdiction's remote, undeveloped character have been eroded, and that development and division of land in the interior is likely having a negative impact on ecological values and forest resources and on primitive recreational opportunities. In selected high-growth fringe areas, the Commission believes that some development has had negative effects on the values of special lakes, wildlife, and scenic resources.

The most important finding, however, is not indisputable evidence of lost values, but identification of a development pattern that is not conducive to the long-term protection of these values. And as the following evaluation of the Commission's approach to development indicates, this growth pattern is largely avoidable.

## Evaluation of Commission's Approach to Development

Many of the Commission's policies and regulations have been generally effective in protecting the values of the jurisdiction. Several deficiencies have been identified, however, that work against the Commission efforts to "encourage new growth within and proximate to compatible developed

areas, particularly towns and communities" and to protect the jurisdiction's principal values.

### Strengths of the Commission's Approach

One of the greatest strengths of the Commission's approach is its identification and protection of distinctive or fragile natural resources: deer wintering areas, high mountain zones, Class A rivers, selected high value lakes and most inaccessible ponds, large, nonforested wetlands, and significant recreational trails. Most of these areas are prospectively zoned and buffered from potential development. During the 1971-1991 period, the Commission feels that the values of these resources have been substantially protected. While there may be other important natural resources or physical features that also warrant such high levels of protection, the Commission feels that its general approach to protecting these resources is sound, and adequate for their continued protection.

The Commission's lakes program, adopted in 1990, has generally been successful in ensuring protection of certain pristine lakes and providing guidance on which lakes are most suitable for future development. In this instance, the Commission conducted a comprehensive evaluation of the lakes of the jurisdiction and developed management guidelines based on their values. This approach may provide a model for the protection of coastal islands and other high-value areas.

Another strength of the Commission's approach is its focus on the location of major new development. A weakness of many land use regulations in other parts of the country is their focus on mitigation rather than on location. Under this approach, development is allowed in most locations as long as it satisfactorily addresses site-specific concerns. The eventual result of this type of planning is a sprawling development pattern comprised of individual projects that may not cause site-specific problems, but which, cumulatively, consume open space, irrevocably alter community character and contribute to unforeseen off-site impacts.

Site mitigation is an important tool, but it generally does not assure long-term protection of an area's essential character or of its natural resources. The most effective way to preserve the values of an area is to promote compact development patterns, and the Commission has been at least partially successful in this objective. While the Commission has struggled with the issue of appro-





*Pre-LURC Development when no setbacks or vegetative buffer were required*

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*Post-LURC Development on Azischoos Lake with setbacks and buffer*

priateness of location for some large-scale projects, particularly planned developments in more remote areas and other developments where the adjacency principle cannot be clearly applied, the overall focus on location is a strength which warrants further refinement.

## Weaknesses of the Commission's Approach

The Commission has long recognized the importance of promoting compact development patterns and discouraging sprawl. Yet the application of this principle to all forms of development has been more difficult, and some of the principles and standards the Commission has used to guide growth lack refinement. Four major weaknesses are: (1) the exemption of certain lots from the Commission's subdivision review, (2) the Commission's reactive treatment of rezoning proposals, (3) lack of recognition of local and regional differences within the jurisdiction, and (4) limited control over infrastructure improvements, particularly roads.

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#### Exemptions to the LURC Law

The statutory exemptions to the LURC law regarding divisions of landownership undermine the purposes of the law and interfere with the Commission's ability to effectively guide growth. These exemptions are for large lot divisions, originally intended to allow the creation of woodlots but now used largely to create lots for development, and for the 2 lots that can be created every 5 years (the 2-in-5 exemption) from a single parcel or ownership within each township.

The amount of exempt lot division has been substantial since LURC was created in 1971, and represents a significant departure from the historical landownership and development pattern of the jurisdiction. Over the last decade the legislature has enacted several amendments that have made the creation of large lots less attractive, but exemptions remain for large lots created away from waterbodies. The 2-in-5 exemption applies to all areas. Creation of these lots is likely to continue as a result of improved road access, changing landowner objectives and increased demand for second homes.

Whereas subdivisions and other development requiring rezoning receive Commission review regarding the appropriateness of their location, unregulated lot divisions receive no such review.

When dwellings are proposed for exempt lots, the Commission generally limits its review to conformance with dimensional standards and subsurface waste disposal rules.

Exempt lots may also create new patterns of development which can become the basis for new development zones. Under the Commission's existing approach, lands rezoned for development generally must demonstrate that they are near existing concentrations of similar development. In most cases, this requirement precludes new subdivisions in remote, undeveloped areas. But developed exempt lots in otherwise remote areas could be used to support such rezonings.

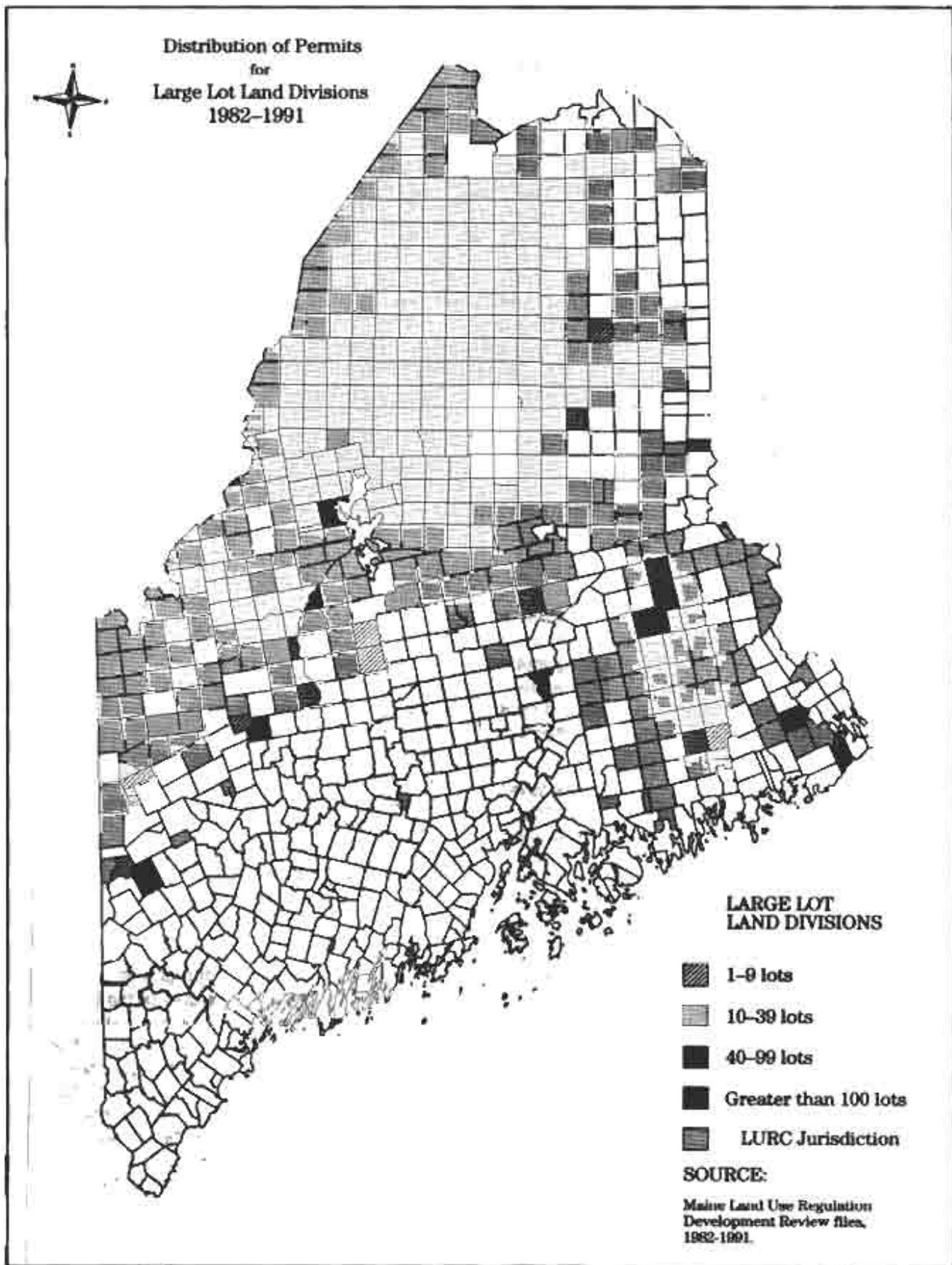
#### Reactive Approach To Rezoning

The Commission's existing zoning framework is largely based on identification of where development exists as opposed to where development is most appropriate. Because of this, most proposals for intensive development require rezoning of land to a Development Subdistrict at the time a proposal for development is made. Since landowners must usually initiate such rezoning proposals, zoning decisions are driven more by landowner preference and constraints than by public policy regarding the most suitable locations for development.

In the past, four basic principles have broadly guided the Commission in evaluating most major development proposals. Those principles are: (1) that most future development should take place within or near compatible developed areas, particularly near towns and communities; (2) that the rezoning should be consistent with other goals and policies of the Comprehensive Land Use Plan; (3) that applicants for rezoning should demonstrate a need for their development in the community or area proposed; and (4) that there be no undue adverse impact on existing resources and uses.

The criterion of demonstrating a need in the community or area is aimed at assuring that the rezoning is truly necessary and not overly speculative. For residential projects, the Commission has historically considered the apparent demand for new housing in a community or area; for nonresidential projects, the need for the services, goods or jobs that would result from the rezoning.

The criterion that new development should be located near existing development is referred to as "the adjacency" principle, and the Commission has generally interpreted it to mean that most rezoning for development should be no more than a mile by road from existing compatible development. The



Commission recognizes that there are certain instances in which a greater or lesser distance may be appropriate in measuring distances to existing developments.

These rezoning principles have generally served the Commission well, but they have several deficiencies, especially the application of the adjacency principle. When zoning was first adopted for the jurisdiction, development zones were created around clusters of existing development with no consideration of the suitability of areas for future growth. Under the Commission's rules, relatively few existing residential or commercial structures are needed to make areas eligible for development subdistricts, and this has resulted in a proliferation of small development districts throughout the jurisdiction. Application of the adjacency principle to all of these districts renders large areas of the jurisdiction potentially appropriate for intensive development. In addition, as previously described, the development of exempt lots has potential to produce other clusters of buildings in remote areas that could be used to support rezoning of adjacent lands.

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Once an area is rezoned and developed, it can, in turn, serve as the basis for rezoning other areas within a mile. The adjacency principle, then, has the potential to sanction a leapfrogging effect in which each new development potentially becomes the existing, compatible developed area from which adjacency for the next development can be measured.

The adjacency principle also lacks guidance on what types or intensities of use constitute "compatibly developed areas" and on situations where it may have limited application. Does a cluster of five dwellings, for instance, establish adjacency for a proposed 50-lot subdivision nearby? Should remote sporting camps be viewed as a development center for other types of development? On smaller coastal islands, using a one mile adjacency threshold may justify rezoning anywhere on the island.

The rezoning criterion that requires demonstration of a need has also been problematic. The subjectivity and relativity of the term "need" makes it difficult to apply in a consistent manner. The criterion has been effective in discouraging wholesale rezoning for speculative purposes, but has been more difficult to apply to smaller projects.

Overall, the existing rezoning system does not offer sufficient guidance to prospective devel-

opers as to the most appropriate and potentially approvable areas for development. While it was necessary as an interim approach to guiding growth in LURC's early years, the case-by-case review of rezoning proposals is becoming ineffective as the principal tool for guiding growth. Furthermore, it would become unworkable if market conditions or landowner objectives change, resulting in significant new development pressures.

#### Lack of Recognition of Local and Regional Differences

With a few exceptions, the Commission generally applies a "one size fits all" approach to different areas of the jurisdiction. An application for a building permit in Argyle Township, just north of Old Town, for instance, is reviewed in a similar fashion to a permit for a dwelling in an extremely remote areas such as Soper Mountain Township. The coastal islands under the Commission's jurisdiction are significantly different than typical inland areas, but regulation of and permitting in these areas are essentially the same. The primary focus of all permit reviews is whether the proposal meets the Commission's dimensional requirements and subsurface waste disposal rules.

For larger scale projects, the Commission performs a more comprehensive review of project impacts, but the process is the same for all areas in the jurisdiction. As the adjacency principle is now applied, the focus is on whether there is existing development in the vicinity, not on the general appropriateness of the area for intensive development. Under the previous example, a rezoning proposal in Soper Mt. Township might succeed if it were located near five otherwise isolated seasonal camps, while a similar proposal in Argyle, a few miles away from Interstate 95, may fail because there are no dwellings in the vicinity.

Use of this type of approach is understandable in light of the immense size of the jurisdiction and staffing constraints. But opportunities exist for refinements in which variations in values between different areas would be more strongly considered. As it now stands, the review process and standards that apply to some communities may, in fact, be overly conservative in light of relatively low resource values and location on the edges of the jurisdiction. In more remote townships, these same procedures and standards may provide insufficient consideration of the impact of the proposed project on principal values.



### Unplanned Infrastructure Improvements

Land use is largely dependent on access. Therefore transportation improvements are a prime determinant of where future development will be located. While the original purpose of many roads in the jurisdiction is to access new areas for timber harvests or to improve hauling routes, these road improvements can also serve as a catalyst for future development, especially if they increase access to areas with high recreational or scenic values. A proposal for a subdivision on one of these roads has to meet the Commission's adjacency criterion, but permits for individual residences on lots exempt from subdivision review do not.

Roads can also affect recreational values. Improved access generally increases use, potentially causing loss of remote values, degradation of high value resources, and management problems for landowners such as vandalism, inadequate sanitary facilities and littering.

Under statute, the Commission has limited control over land management roads in Management Districts. Land management roads must meet a number of guidelines aimed at minimizing environmental impacts, but except in

selected protection subdistricts, the Commission does not review the location of land management roads.

The Commission encourages the continued allowance for public access where such access would not have a detrimental impact on resource values. Some haul roads are gated and others permanently closed after harvesting, but according to the Maine Paper Industry Information Office approximately 98% of these roads stay open for public use. In some cases, public opposition can arise over the closing or gating of private roads.

The extension of utilities also has an impact on the location of development and its level of intensity. Extending utility lines into more remote areas can spur new development because of improved marketability of homes with electricity and telephone service. The availability of electricity can substantially increase sewage generation because electric pumps facilitate water use. This is particularly true in old lakeshore development where camps often have inadequate septic systems, located close to shore on poor soils. The Commission reviews proposals to extend utilities, but determining direct and indirect impacts on the jurisdiction's values has been difficult.

## Development Issues and Recommended Refinements

### Central Issue: Location of Development

#### Summary Statement

The Commission has concluded that the principal development issue is not the amount of development taking place in the jurisdiction, but rather where it is located. This conclusion is based on analysis of the pattern and impacts of development that has occurred within the jurisdiction since 1970 and evaluation of the effectiveness of the Commission's policies and regulations in protecting the principal values of the jurisdiction. The most important finding from evaluation of these development trends is not indisputable evidence of lost values, but identification of a development pattern that is not conducive to the long-term protection of

these values. Further, the Commission believes considerable opportunities exist for refinements to its approach that would promote a more sustainable growth pattern.

### Recommended Refinements

#### Controlling Lot Creation

Analysis of the amount and location of exempt land division activity over the past 20 years clearly shows the counterproductive nature of large lot exemptions to the subdivision law. This exemption was created to enable easier exchange of forest lands, and its use for development purposes is not consistent with the legislature's original intent. The legislature will be informed about the result of exempt divisions and asked to reconsider these

statutory exemptions from the subdivision definition within the LURC law. If the large lot exemption is maintained, the law should at least be amended to limit the future use of exempt lots to forest management activities. Such changes should address the potential problem of large lots created under a forestry exemption being eventually developed.

If the legislature does not repeal this exemption to the subdivision law, the Commission will explore other mechanisms to address the impacts of scattered development in the interior of the jurisdiction. One option would be to consider more than site specific factors in the permitting of dwellings that are proposed for these exempt lots. Considerations such as the nature of road access and proximity to other dwellings could be part of this process. Permits in high-value areas in the interior could be restricted or only dwellings meeting remote camp criteria could be allowed.

While the Commission believes that lot creation through the 2-in-5 exemption has been considerable, there is no easy way to track these divisions. Without more information on the number, location and impact of these divisions, the Commission believes it is premature to seek changes in this aspect of the subdivision law. A requirement that the Commission be notified when lots are created in this manner would allow for better tracking and evaluation.

If the Commission determines in the future that the creation and development of lots under this exemption are problematic, it will consider some of the options listed above that address the permitting of buildings on exempt lots. The option of requiring buildings on exempt lots in interior locations to meet the remote camp definition may have particular merit.

#### Applying Prospective Zoning

Prospective planning and zoning will address several of the limitations of the case-by-case approach. Under prospective zoning, the Commission identifies areas within a community or region that are most appropriate for additional growth based on existing development patterns, natural resource constraints, and future planning considerations. These areas are then zoned as development districts, and future growth is facilitated in these zones. This approach makes the development review process more efficient and predictable, and promotes both economic development opportunities and the protection of principal

values. The prospective zoning process also creates an excellent opportunity for public participation by residents, landowners and other interested parties.

Prospective zoning has already been applied in the township of Greenfield, which deorganized in 1993. After an inventory of the community's land uses and natural resources, the Commission, with input from the public, identified and zoned several areas determined to be most suitable for future residential and village growth.

The best candidates for future prospective zoning are probably high-growth, high-value regions identified in the section of the plan on areas with special planning needs. In these regions, prospective zoning could be effectively used to balance growth and economic development needs with protection of their special resource values. The four highest priority areas are:

- The Rangeley Lakes region
- The Moosehead Lakes region
- The Millinocket-Baxter State Park area
- The Carrabassett Valley area

With the state's major highway (Interstate 95) passing through or near the Commission's jurisdiction in Penobscot and Aroostook Counties, the Commission will encourage major nonresidential development along this corridor through prospective development zoning or in response to rezoning proposals for such development.

#### Guiding Development at the Jurisdiction Level

While applying prospective zoning at the local or regional level shows great promise, especially in balancing growth and conservation in high-growth areas on the fringe of the jurisdiction, it has several limitations. First, the process is time consuming and expensive, and, at 1996 staffing and resource levels, it may take several years to comprehensively inventory and zone a single region. By the time the Commission has applied this approach to a relatively small portion of the jurisdiction, a significant amount of additional growth may have occurred, some of it in inappropriate areas.

Second, the process focuses on individual communities or regions, and does not consider the larger issue of where development is most appropriate in the jurisdiction as a whole. The principal values of the jurisdiction differ significantly from

township to township and from region to region, but no specific guidance exists on where development can occur with the least overall impact on these values. Other than regions identified as most appropriate for prospective zoning, there are other communities on the fringe of the jurisdiction where development could be accommodated without significant impacts on the jurisdiction's principal values. Yet under the jurisdiction's one-size-fits-all approach, development in these areas is treated in a fashion similar to that in high-value interior areas. Some of the jurisdiction's more interior areas may be among the last to be prospectively zoned, yet it is the values of some of these areas that are most sensitive to development.

In order for the Commission to effectively plan for future growth and ensure the long-term protection of the jurisdiction's principal values, it will consider improvements to its overall approach in guiding growth on a jurisdiction-wide basis over the next 10 years. The Commission will evaluate the suitability of different towns, plantations and townships for future growth based on their location relative to population and job centers, availability of roads and infrastructure, demand for development, and the type and extent of principal values that they possess. The Commission will then consider incentives for promoting growth in the areas determined to be most suitable and disincentives for development in areas deemed least suitable.

The Commission believes that the success of any effort to better guide development at this level will depend on support among diverse interests and strong participation by large landowners. The vast areas of the jurisdiction remaining in unified ownerships offer considerable opportunities for promoting a growth pattern that preserves development opportunities and equity while assuring better long-term protection of principal values. Considerable opportunities may also exist for non-regulatory approaches that provide landowners with flexibility and incentives to pursue voluntary measures.

#### Improving the Rezoning Approach

While prospective development zoning and other growth management strategies will lessen the need for rezoning over time, there will always be a need to consider rezoning in a timely and equitable manner. Despite the relatively high rate of approvals for rezoning, developers face uncertainty when presenting a request for rezoning because

the system requires so many judgements from the Commission as it applies general rezoning criteria. The Commission has developed a draft rezoning guidance system which is being applied by the staff on a trial basis to provide more equity in the rezoning process. The Commission will refine this system after this trial period and make it available to applicants as guidance in the rezoning process.

The adjacency principle will remain a central consideration in rezoning, but its application will be further refined to promote consistency and good planning. The Commission recognizes, for example, that isolated patterns of development in remote locations, such as sporting camps, should not be used as the basis for rezoning adjacent lands for development as it can establish conflicting uses. Existing development used to support rezoning should either be of a similar type, use, occupancy, scale and intensity to that being proposed, or a village center with a range of existing uses that the new development zone would complement. Several of the policies of this plan provide more direction on how the adjacency principle would be best applied in different situations.

The rezoning criterion requiring demonstration of need provides the Commission a powerful tool in evaluating the viability and scope of proposed development. The Commission, however, will assess its use of this criterion with a goal of applying it as consistently as possible. Under the proposed rezoning guidance system, the need criterion is broken down into a number of factors intended to provide a more objective assessment of need. Factors include evaluation of availability of vacant building lots, the amount of land in the area already zoned for the proposed use, and anticipated benefits such as jobs and tax revenues. As the Commission and applicants become more comfortable with this system, it should provide more predictability in the assessment of need.

In communities that are prospectively zoned, the areas most appropriate for future growth will be zoned as development districts, eliminating the need for most projects to go through the rezoning process. Requests for rezoning additional lands in these communities will be reviewed with particular care to avoid sprawling development patterns or a mixing of incompatible uses. The adjacency principle would be most applicable in allowing for needed expansions of existing development zones. Broader application of the principle, however, could lead to a proliferation of rezoning that may upset the balance between development and con-



ervation that was a part of the original prospective zoning plan. In these situations, the most important consideration will be whether new areas proposed for rezoning are viable growth centers and consistent with the initial prospective zoning plan.

### Considering Infrastructure Improvements

While the Commission believes that the siting of roads can have unforeseen impacts, this plan does not make recommendations to regulate the location of land management roads to control the location of development. The Commission recognizes the importance of the haul road network to the forest products industry, and road siting issues, where identified, will be addressed in a cooperative manner. If the Commission is able to review the location of new lots that are now exempt from subdivision review, the issue of roads facilitating scattered development will be at least partially addressed.

The Commission will continue to monitor the location of new land management roads and the closure of existing ones. By conducting a more comprehensive inventory of the jurisdiction's road network, the Commission will be in a better position to track the relationship between road construction and development.

The Commission does have considerable control over utility extensions, and the potential impact of proposed extensions will be carefully evaluated. Both the immediate site impacts and the long-term impacts of bringing utility services into an area will be important considerations. A prospective zoning approach will provide additional direction on which areas are most appropriate for utility extensions.

## Other Major Issues

### Economic Development

While the Commission is charged with protecting the values of the jurisdiction, it will ensure that reasonable economic development is accommodated, particularly facilities related to forestry, agriculture or recreation. Considerable opportunities exist for facilitating economic development in appropriate areas, and the Commission will reexamine its standards to assess their effect on economic growth.

The issue most commonly identified as a potential impediment to economic development is

the permitting process. The Commission made a significant effort in 1988 to streamline its permitting process by broadening the definition of activities for which permitting would be expedited. The Commission will continue to seek out opportunities for further streamlining. Every effort will be made to make the permit turn-around time no longer than absolutely necessary to complete a thorough review in which the Commission's statutory responsibilities are carried out.

The Commission will expedite the permitting process by (1) simplifying application forms, (2) identifying minor activities and alterations for which no permit is required, (3) designating permits which could be issued at the field office level as staffing becomes available to perform such function, (4) delegating to staff the ability to act on small-scale rezoning proposals within designated growth areas which meet the Commission's rezoning guidelines, and (5) identifying types of uses that could receive accelerated review and approval. Examples of such uses include accessory structures and expansions that comply with certain size and location requirements, and new structures on lots which are either part of LURC-approved subdivisions or within districts prospectively zoned for development, particularly for sites located away from shoreland areas.

A number of enterprises support or reinforce the principal values of the jurisdiction, and these types of activities will be promoted, not hindered, by the Commission's policies and regulations. Certain facilities, for instance, can provide a means of recreational use with less impact than a large number of individual second homes or camps. In more remote areas, traditional, nonintensive facilities such as sporting camps or primitive campsites are most appropriate, and the Commission's policies and regulations will promote these types of uses.

Traditional sporting camps represent both a recreational asset and a valuable part of the heritage of the North Woods. The Commission's approach to these facilities will recognize their need to adapt to changing economic conditions and their dependence on the remote character of their surroundings. Permitting of reasonable expansions and improvements will be facilitated, with assurances that camps will not evolve into more intensive uses that could have negative impacts on the area. Proposals for other development adjacent to sporting camps will be reviewed with particular care to ensure that values on which the camps depend for their survival are not eroded.





More intensive recreational facilities are most appropriate near developed recreational centers, or as part of well-planned developments in other areas. Both commercial whitewater rafting and downhill skiing provide increased recreational opportunities and considerable economic benefits, but have potential for negative impacts on other principal values. Growth of these industries is best accommodated as expansion of existing facilities or as compact development in identified areas.

The Commission already recognizes the need to provide flexibility in the siting of buildings used in forest management or agricultural activities. These uses are allowed without a permit in General Management Districts. There may be other buildings related to forestry or agriculture that will be treated in a similar manner.

Other types of businesses that may be inappropriate in interior areas may be suitable in communities on the fringe of the jurisdiction. In developing strategies for guiding growth, the Commission will identify areas where these economic activities can occur with the least impact on principal values. Fringe areas near population or employment centers with available infrastructure and low resource values are generally the most

suitable locations. For such areas that have not yet been prospectively zoned, the Commission will facilitate development by making it easier for projects proposed for these areas to meet the Commission's rezoning criteria.

In the Commission's rules, there are four different types of development zones that can be created to accommodate new development: Residential Development (D-RS), General Development (D-GN), Commercial Industrial Development (D-CI) and Planned Development (D-PD) subdistricts. While the D-GN subdistrict allows small-scale commercial development, other more intensive development that may also be appropriate in a village area is either not allowed or only permitted by special exception. Creation of a zoning classification more conducive to village-type uses would provide additional flexibility in the development of these areas.

Other types of development may have needs or impacts that could be better addressed with a special zoning designation. Solid waste facilities, for instance, are best sited in areas with existing infrastructure, but location within a village area is probably not appropriate. The zoning of most existing gravel pits as Commercial-Industrial subdistricts may also be inappropriate considering the location of these facilities in more remote areas and their ongoing expansion needs.

## Impacts of Existing Development

Much of the focus of the Commission's longer range planning efforts is on new development. Expansions and conversions of existing development, however, have the potential to degrade the jurisdiction's values, and the Commission's approach to these uses should be equally protective as its approach to new uses.

### Nonconforming Uses/Structures

Many existing structures, built prior to the enactment of the Land Use Regulation Law, are on inadequately sized lots, have soils unsuitable for waste disposal, or have inadequately designed or located waste disposal systems. When these structures require rebuilding or major renovation, the Commission applies reasonable requirements to upgrade the existing system so that future problems are minimized.

Some landowners have, on their own initiative, reconfigured nonconforming lots to bring them into compliance with current regulations. The Commission recognizes these efforts as being supportive of its own objectives and encourages other landowners to do likewise prior to development, sale or leasing of such lots. The Commission will seek to establish incentives for bringing lots and structures into compliance or closer compliance with current regulations. In these efforts, the Commission is mindful of issues of fairness and consistent treatment of landowners with nonconforming situations.

The Commission supports traditional uses of the jurisdiction including the traditional sporting camp. In light of the relatively small number of established sporting camps, the frequent nonconforming nature of structures associated with such facilities, and the importance of maintaining the integrity of the facility as a whole, the Commission recognizes the need to deal with nonconforming structures that are part of established sporting camps as special circumstances in considering the rebuilding or expansion of such nonconforming structures.

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### Conversions of Existing Uses to More Intensive Uses, Particularly on Lakes

For a variety of reasons, including improved road access, many formerly low impact, seasonal structures are being converted to more intensive and/or year-round structures. These conversions have the potential to significantly increase the impact of the use on traditional uses and natural resources, especially where they occur on lakes.

This trend manifests itself in expansions and changes in use of sporting camps and conversions of seasonal camps to year-round homes. Sporting camps have been allowed in P-GP zones because the traditional camps have been relatively low impact, resource-based uses. However, as they expand to offer more diversified commercial services or approach resort status, their impact on surrounding uses and resources may increase, and they may no longer be a compatible use in the zone. The Commission will define what it envisions as the traditional commercial sporting camp, recognizing that this definition and what is considered traditional will likely gradually change over time.

### Site Mitigation and Appropriate Design

A major requirement of new development is that "provision be made for fitting the project har-

moniously into the existing natural environment in order to assure that there will be no undue adverse effect on existing uses, scenic character, and natural and historic resources in the area..." The Commission has generally done a good job in ensuring that development has minimal impacts on its surroundings. This is particularly true of larger projects because of the thorough review they undergo as part of obtaining subdivision or development permits. Concerns such as buffering, phosphorus mitigation, and optimum site design are addressed as part of these review processes.

However, there are several weaknesses in the Commission's current approach. First, the Commission's *Land Use Districts and Standards* provide few specific standards on how this criterion is best met. For larger projects, Commission staff has relied heavily on concurrent review by the Department of Environmental Protection (which is no longer performed), and on detailed submission forms. While most applicants have proven responsive to staff suggestions on how to fit their project into the natural environment, no formal standards exist for such considerations as road design and construction, stormwater control, and environmental effects such as noise and glare. Standards such as these are commonplace in the land use ordinances of most organized communities and provide important guidance both to boards or staff reviewing projects and to prospective developers.

Lack of appropriate road standards has been a long-standing issue. Narrow, poorly surfaced camp roads do not easily accommodate snow plows, fire trucks, ambulances, or school buses, but wide, suburban-type subdivision roads may be inappropriate in much of the jurisdiction and require unnecessary amounts of clearing and impervious surface.

The Commission will adopt a set of performance and design standards for subdivision and development proposals that provide staff and applicants with clear guidance on how development can best meet the Commission's general standards. Particular emphasis will be given to developing a set of standards for subdivision roads in which design and construction requirements vary according to their function and setting. Building setback requirements from different types of roads will be reconsidered as well.

Another weakness in the Commission's approach has been lack of guidance to applicants on more innovative approaches to site design that preserve open space and retain natural features.

The Commission has been supportive of projects that incorporate both a development and conservation component, but this type of approach is not strongly promoted by the Commission's existing rules. Many new projects, as initially proposed, are characterized by unoriginal lot layouts that "grid out" parcels of land off existing roads and preserve little open space. The Commission will investigate additional incentives for promoting more creative site design and encourage pre-application conferences in which staff and applicants can discuss the merits of different development options and address design issues early in the review process.

### Siting of Unwanted Land Uses and New Technologies

Proposals to site major new waste disposal, energy, or utility-related facilities in more populated areas of the state have been opposed by organized citizens groups concerned about the impact of such facilities on their communities. Because of the jurisdiction's large area and low population density, it is likely to be increasingly viewed as a desirable location for some of these land uses.

A number of power transmission lines cross the jurisdiction. These facilities can significantly affect an area's scenic, remote and other natural values. Utility companies interested in siting new transmission or pipe lines may increasingly look to the jurisdiction for several reasons. First, there are advantages in dealing with one permitting agency rather than a number of organized towns. Second, state law limiting utilities' eminent domain powers over unwilling sellers makes these companies more likely to choose rights-of-way where there are fewer landowners. Third, the jurisdiction stands between the source (the Canadian provinces) and the need areas.

While the Commission is concerned about the potential site-specific impacts of such facilities, it is also concerned that they be located in areas where they will have the least impact on the jurisdiction's principal values. Generally speaking, they are best located in areas on the fringe of the jurisdiction with good existing road access but low natural resource values.

In the case of new transmission lines or pipelines, the Commission can minimize their impact by encouraging the siting of these facilities

along existing right-of-ways, particularly roads, and discouraging new routes through more remote areas. In the case of radio communication towers, the Commission will ensure that such towers are dismantled and removed from the premises if unused for an extended period. To minimize the number of such towers, the Commission will also ensure that space on new towers is made available to other users where feasible.

Paper companies spread paper mill sludge on forested lands within the jurisdiction. The Commission has prohibited such spreading in certain environmentally sensitive areas and requires a permit in other sensitive areas. However, in the vast majority of the jurisdiction (management districts), the Commission does not require a permit for such activities provided it complies with applicable regulations of the Department of Environmental Protection. The Commission will continue to monitor DEP's permitting and regulation of such activities to determine whether the Commission needs to take additional measures to adequately protect the values of the jurisdiction.

In the mid-1990's, there has been considerable interest in the jurisdiction as a location for wind-generated electricity. While the Commission recognizes that windpower projects must be located where the wind resource exists, they have potentially significant on-site impacts due to their high elevation location and equally significant potential to adversely affect the jurisdiction's principal values.

Windpower and some other activities represent technologies or uses that are new to the jurisdiction. In the early 1990's, there were strong indications that large scale metallic mining operations would be proposed for some areas of the jurisdiction. In response, the Commission worked with the Department of Environmental Protection to draft uniform procedures and rules governing large-scale mining operations.

The Commission will attempt to stay abreast of new technologies and be prepared for proposals for new uses, especially ones that are likely to occur in high value areas. The Commission will try to be prepared to devote resources to assess the potential impacts of these new uses and to provide policy guidance on their appropriate development within the jurisdiction prior to acting on major development proposals.

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